

Table of Contents

Introduction	2
Foods	9
Toilet Goods	57
Drug & Medical	102
Clothing & Textiles	124
Automobiles & Supplies	159
Household and Miscellaneous Equipment	173
Household Supplies	207
Radios, Sporting Goods, Miscellaneous	231
Index	270

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Introduction

The Introduction should be read carefully; it contains useful information on the nature and use of this book.

The *CU Buying Guide* is an annual publication. In its pages are condensed versions of articles and the ratings of products that have appeared in the monthly *Reports*, along with new material that has not appeared previously in Consumers Union publications.

Many ratings have been revised since their original appearance in the pages of the monthly *Reports*. Such revisions are based on new market surveys, model changes and additional tests. Listings appearing in this edition of the *Buying Guide* supersede all listings given previous to May 1939.

The *Buying Guide* is not intended primarily for the bookshelf. Carry it with you when you go shopping. For ready reference, a complete index of subjects and brand names is included at the end of the book.

Why Confidential?

Unlike the monthly *Reports*, which are available to persons who are not members of Consumers Union, the *Buying Guide* is intended solely for the use of members and their families. The reasons for this are legal, arising from the fact that the information in the *Buying Guide* is limited largely to listings of products. There is not the space for explanation of test methods or discussion of the many factors on which ratings are based, or qualifying statements about particular products, as there is in the monthly *Reports*.

What the Ratings Mean

In general, the rating of a product as "Best Buy" or "Also Acceptable" is based on both the quality and the price of the product as compared with the quality and price of competing products. The quality of a product rated "Also Acceptable" may be better than that of a product rated "Best Buy," but the "Best Buy" will normally give greater return per dollar. With many products, however, first- and second-highest quality, regardless of price, has been noted.

In most cases a product is rated "Not Acceptable" only

when it is not worth buying at any price, either because of inferior quality or because it is potentially harmful. In a few instances, products not necessarily harmful in themselves have been rated "Not Acceptable" if wholly unsatisfactory or possibly harmful when used for the purpose advertised.

How Accurate Are the Ratings?

This question was answered in the first issue of *Consumers Union Reports* (May 1936) and the answer is reprinted here:

The ratings of products represent the best judgment of the technicians on the staff of Consumers Union or of consultants whose technical competence and freedom from commercial bias make their opinions of value to consumers. Ratings are based on laboratory tests, on carefully controlled tests under conditions of use, on the experience of a large number of persons with the products being studied, or on a combination of these factors.

It should be understood, however, that the ratings, even when based on laboratory tests, represent in large measure *opinions* and not simply a compilation of scientific data. While it is possible, for example, to state with a fairly high degree of certainty that one bottle of milk contains more butterfat than another bottle, with most products judgments are not so simple. Thus, stockings may be carefully tested in the laboratory, but experts are far from being in agreement as to the value of such tests in determining how well a pair of stockings will wear.

There is, too, the possibility of errors of technical finding and of fact. Such errors are made even in the most painstaking scientific work, and are unavoidable in the regular technical work of Consumers Union, which involves the handling of great masses of material in diverse fields. The technical staff gives its assurance to members of Consumers Union, however, that it will exercise the greatest care in testing and judging products, in checking data, and in preparing ratings. Where errors are found, corrections will be promptly made.

Doubts may arise as to the value of advice which can be given only with such qualifications. Yet it is a far better guide to intelligent purchasing than any other ordinarily available to the consumer; it gives him far greater chance of getting good value for his money; it substitutes the best

technical knowledge that can be made available for haphazard guessing; and it does give the consumer the satisfaction of having his buying choices determined by technical tests rather than by the cleverness of an advertising copy writer or the ingenuity of a manufacturer in making a shoddy product look like a good one.

Products Not Listed

It is, of course, impossible to cover all the hundreds of thousands of different brands of consumer goods available. Tests must necessarily be confined to products which are widely distributed. CU has endeavored to cover the brands generally available in different parts of the country, but inevitably some important brands have been missed. If you know of a brand not covered which is widely distributed in your section of the country (not simply in one city) please write Consumers Union about it. An effort will be made to include it in future tests.

Retesting of Products

Ratings of a number of products, based on tests made before 1938 have been included in this issue of the *Buying Guide* (all such ratings are identified in the text). In some instances partial retesting has provided additional information which has been included along with the original data. In most cases the current availability of the models tested has been checked.

Eventually CU hopes to retest all the more important consumer goods from season to season. But to date the pressure of new projects has made this impossible, except for those products which are made obsolete each year by the introduction of new models (radio sets, refrigerators, &c.). Meanwhile, there is good reason for carrying over ratings. The products rated are frequently to be found on sale or at special discounts which may make them excellent buys.

Quality Changes

Remember that the quality of a product, whether it is a small private brand or a major nationally advertised brand, may change, and without any notification to the buyer. New yearly models may completely alter relative ratings. Before making an important purchase on the basis of *Buying Guide*

ratings, make sure that there are no more recent ratings of the product in the monthly *Reports*.

Prices

The prices given in the following pages are, in the majority of cases, those at which the samples tested were purchased. In some cases, however, particularly with mail-order items, it has been possible to give prices current during the preparation of this *Guide* (Winter '38-'39). Where this has been done, it has been so noted. Since prices of many products vary both from month to month and from one area to another, the prices given should be considered only as an approximate guide.

Mail-Order Buying

Some members have complained of the attention given to mail-order products. The explanation is simply that mail-order products are available everywhere and that good buys are frequently to be found in the mail-order catalogs. Especially in the case of large purchases it is often worth while to take the trouble to order by mail. Members are urged to get Sears-Roebuck and Montgomery Ward (both of Chicago) catalogs and to use them in buying when products of these companies are listed as outstanding buys.

It is by no means true, however, that mail-order products are always worth buying. In a number of cases the mail-order products have been among the poorest tested.

In many cases products listed in the catalogs are not sold in the retail stores of the mail-order companies. Unless the salesman can prove that the product sold in the store is the same as the product you are looking for, insist on his ordering it for you by mail.

In the ratings are many cooperative brands, with addresses of the cooperatives given. Included among these are CD (Cooperative Distributors) products. Cooperative Distributors is a mail-order cooperative with offices and salesrooms at 116 E. 16 Street, NYC. Members wishing to buy from CD should write for the catalog.

Buying Suggestions

A number of suggestions are offered for simple tests that members can perform themselves, either in the store at the

time of selecting a product or at home. A few formulas are also given by means of which members can make products of their own or have them made. Members must evaluate the usefulness or convenience of such material in terms of their own individual needs. It is intended primarily for those members who have the time and the facilities and the economic need to control their buying as rigidly as possible.

Back Copies of the Reports

A stock of back issues of the *Reports* (from May 1936 on) is maintained at the CU offices. Single copies may be obtained for 25¢ each. Sets of back issues may be bought at the following reduced prices:

\$1 for all 1936 issues (8 issues).

\$1.50 for all 1937 issues (10 issues).

\$2.50 for all 1938 issues (12 issues).

\$5 for all issues through December 1938.

See back pages for contents of back issues.

Special CU Reports

CU publishes from time to time special reports which, because of the length of the material or its nature, are not suitable for publication in the monthly *Reports*. The following are available:

"Wines and Liquors," a 125-page report on imported and domestic whiskies, gins, brandies, rums, cordials and wines. 300 brands are covered. 50¢.

"Prophylactic Materials," a report analyzing the quality of leading brands of prophylactic and feminine hygiene materials, available to married members of CU. 25¢.

"The Purchase and Use of Nursery Stock," a report on the purchase and care of fruit and shade trees, shrubs, roses, berries, &c.; discussion of soil, climate, pollination problems; an extensive bibliography is included. 50¢.

CU Publications

The following Consumers Union books are available to members at reduced prices:

"Photographic Buyers' Handbook," by A. R. Lambert and Consumers Union staff. A survey of all types of miniature and larger cameras; discussion by brand name of photographic

equipment—films, enlargers, exposure meters, tripods, dark-room equipment, &c. \$1.50.

"Millions On Wheels," by D. H. Palmer, CU Technical Supervisor, and Laurence Crooks. A guide which provides standards for selecting a new or a used car and for operating it safely and economically. The book offers buying data on autos, tires, gasoline, batteries, cleaners and waxes, &c. \$1.25.

"Our Common Ailment," by Dr. Harold Aaron. A discussion of laxatives and cathartics and the condition they are supposed to cure. CU's Special Medical Adviser offers an intelligent approach to the treatment of constipation. \$1.

"False Security," by Bernard Reis. The story of the betrayal of the American investor. Written by CU's treasurer, a certified public accountant of long experience in investigating stock and mortgage frauds. \$1.40.

Government Publications

Government publications which are free can be obtained from the department issuing them. Publications for which there is a charge are obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. Remittance may be made by check, money order, document coupons, or currency (at sender's risk), but *not* by postage stamps. The most convenient method is to keep on hand a supply of 5-cent document coupons, which may be bought from the Superintendent of Documents, 20 for \$1.

Labor Notes

Labor conditions under which many products are manufactured are described in the *Reports* in supplementary notes. These notes are completely independent of the quality ratings, and have no bearing on them. Thus, a product receiving a high rating may be made under poor labor conditions and some products receiving low ratings may be made under good labor conditions. Labor notes are not included in the *Buying Guide*. The very swift changes continually taking place in labor relations make it impossible to include, in an annual publication, labor data that would remain up to date and reliable.

Ratings which were accompanied by labor notes when they originally appeared in the *Reports* carry a reference line indicating the fact. Members are urged to consult these notes

for general labor information but should remember that they are specifically applicable only to conditions prevailing at the time of writing.

Sources of Supply

The information given parenthetically after brand names in the ratings varies somewhat according to the nature of the product rated. As a rule, where the product is widely available, the name and address of the manufacturer or sole distributor are given. With products sold only or predominantly through one outlet, the name of that outlet—abbreviated—appears (e.g., Woolworth's, Macy's, &c.). In some few cases, where accurate distribution data are lacking, reference is made only to the names of the stores where the samples were purchased.

Members are urged to write the manufacturer or the distributor for information relating to sources of supply for products rated as good buys. Street addresses are not given; the name of the city is sufficient.

Note

The *Buying Guide* represents many months of painstaking work by the technical and editorial staffs of Consumers Union.

Endless care has been expended to insure the accuracy of these ratings. Nevertheless, it is not at all unlikely that additional investigations or new data may bring to light some errors of fact or judgment. If and when such errors are disclosed, they will be corrected promptly in the *Reports*.

On behalf of its members, Consumers Union expresses its gratitude to the more than 200 technical consultants in university, government and private laboratories who contributed to the investigations and aided in the preparation of the material on which the *Buying Guide* is based.

Foods

COMMERCIAL BAKERY PRODUCTS

Commercial bakers' goods are often a convenience but their food value and flavor are, in general, far inferior to those of good home-baked products. Most commercial bakers skimp on such ingredients as fresh milk, butter and eggs and frequently use dried, frozen or artificial substitutes. Most of them try to reduce production costs by increasing the amount of water, air and sugar in their products. (There are, of course, a few "home" bakeries which use high-quality ingredients and offer products comparable to the homemade. If sanitary conditions are satisfactory, such bakeries may well be patronized.)

Commercial custard and cream-filled pastries are often dangerous because of the possibility of bacterial contamination. Hundreds of cases of poisoning, many of them fatal, have been traced to this source. Because of this danger, many communities have passed laws to regulate the manufacture of this type of pastry, and some have even forbidden the sale of custard-filled pastries during the Summer, when the danger from bacterial contamination is greatest.

BAKING POWDER

New tests on baking powder are under way as the *Buying Guide* goes to press. For results of previous tests see *CU Reports*, November 1936, and 1938 *Buying Guide*.

WHEAT BREAD

It is estimated that bread and other products made of wheat flour contribute over a fourth of the calories in the American diet. It should be kept in mind that although white bread is a cheap source of calories, it is of little value as a provider of other food elements. Much of the mineral matter and vita-

10 BUTTER, MARGARINE

mins are removed in milling. There is much controversy as to whether white or whole-wheat bread is preferable from the point of view of health. While it is certain that white bread lacks much of the mineral and vitamin content that whole-wheat bread possesses, there is evidence to indicate that whole-wheat bread may have an adverse effect similar to bran on delicate intestinal membranes of some people.

BUTTER AND MARGARINE

Most of the butter that reaches the grocer is classified, but the consumer usually is neither shown nor told butter grades. Butter score is a numerical quality rating based largely on appearance and flavor. If it is possible to buy officially graded butter, CU recommends, for home use, creamery butter of Special or Extra Grade (score of 92 or over) or Standard Grade (score of 90 to 91). Butter scoring 92 or above may bear a government certificate of quality, and such butter keeps relatively well.

No more than a week's supply of butter should be purchased at one time, since, even with good refrigeration, butter of average quality deteriorates. In addition, butter absorbs foreign odors.

Margarine (legal name, oleomargarine) is a butter substitute usually manufactured from hydrogenated (chemically hardened) coconut or cottonseed oil flavored with a small amount of milk, with or without the addition of oleo (beef) oil. The main difference in nutritional value between margarine and butter is that butter is an important source of vitamin A, while margarine contains practically none. In an attempt to overcome this deficiency some margarine manufacturers now add vitamin A to their product. However, the amount added (7,500 International units per pound) is only about one-third of the average amount in butter, and it is not certain that vitamin A is the only essential food element present in butter and lacking in margarine.

We recommend the use of butter in preference to margarine wherever possible. Families with seriously limited food budgets, however, may do better to economize by the use of margarine than by sacrificing other important parts of their diet. In such cases it is important to use margarine having added vitamin A, and to emphasize in the diet other vitamin A sources, including carrots, green leafy vegetables and eggs.

CANDY

A report on candy, with ratings of leading 5¢ bars, is in preparation as this *Buying Guide* goes to press. It is scheduled to appear in the May 1939 issue of the *Reports*.

CANNED FRUITS AND VEGETABLES

The ratings that follow are based on U. S. Government official gradings of samples bought at retail by CU's purchasers in various cities throughout the country.

The quality ratings refer only to such characteristics as tenderness, flavor, absence of defects, &c., and not to nutritive quality. Prices should be considered as no more than a rough guide because of variations and changes.

An average of the grades found for different samples of each brand is used for rating. Considerable variation between different samples of the same brand is indicated in footnotes. The brands of each commodity are listed alphabetically under their respective grades.

The approximate capacity of a No. 2 can is 1 lb., 4 oz.; of a No. 2½ can, 1 lb., 13 to 14 oz.

CANNED FRUITS

CANNED APRICOTS

Ref.: CU Reports, May 1938.

BRAND AND PACKER OR DISTRIBUTOR	PRICE PER	
	No. 2½ CAN (¢)	SCORE
GRADE A		
<i>Country Club</i> (Kroger).....	23 ¹	92
<i>Del Monte</i> (Calif. Pack. Corp.).....	24 ¹	90
<i>F&P</i> (Filice & Perrelli).....	25 ¹	92
<i>IGA</i> (Indep. Groc. Alliance).....	19 ¹	93
<i>Jack Sprat</i> (Jack Sprat Foods).....	25 ¹	91
<i>Libby's</i> (Libby)	22	91
<i>Marco</i> (Marr)	23 ¹	95
<i>Monarch</i> (Reid, Murdoch).....	30	97
<i>Red Label</i> (S. S. Pierce).....	30 ¹	94
<i>Red & White</i> (Red & White).....	25 ¹	90

¹ One or more cans slack-filled; contained less than the required drained weight of fruit.

(Cont'd next page)

12 APRICOTS, CHERRIES, FRUIT SALAD

BRAND AND PACKER OR DISTRIBUTOR	PRICE PER	
	No. 2½ CAN (¢)	SCORE
<i>Richelieu</i> (Sprague, Warner).....	43	93
<i>Rock Dell</i> (Younglove Groc. Co.).....	27 ¹	92
<i>S&W</i> (Sussman, Wormser).....	29 ¹	95
<i>Solitaire</i> (Morey Mercantile Co.).....	25	91
<i>Stokely's</i> (Stokely)	25 ¹	90
<i>White Rose</i> (Seeman Bros.).....	29	90

GRADE B

<i>Brimfull</i> (H. A. Marr).....	22 ¹	78
<i>Co-op Blue Label</i> (East. Coop. Wholesale) ..	21 ¹	88
<i>Co-op Red Label</i> (Central Coop. Wholesale)	23 ¹	80
<i>Dinner Date</i> (Packwell Corp.).....	15 ¹	78
<i>Febco</i> (F. E. Booth).....	21 ¹	81
<i>Freshpak</i> (Grand Union).....	23 ¹	78
<i>Iona</i> (A&P)	18 ¹	82 ²
<i>Macy's Lily White</i> (Macy).....	29 ¹	85
<i>Premier</i> (Leggett)	29 ¹	88
<i>Royal Scarlet</i> (R. C. Williams).....	27	86 ²

GRADE C

<i>Rose-Dale</i> (Libby)	22 ¹	73
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SUBSTANDARD

<i>Blue & White</i> (Red & White).....		
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CANNED CHERRIES (Royal Anne)

Canned cherries were last reported on in March 1937. New tests are being planned as the *Buying Guide* goes to press.

CANNED FRUITS FOR SALAD

Fruits for salad consist of apricots, Bartlett pears, Yellow Cling peaches, pineapple and Maraschino-type cherries. The grades which follow are based on standards set by the Canners League of California. No scores or A, B, C grades are given.

Ref.: *CU Reports*, June 1938; *Western CU Supplement*, July 1938.

¹ One or more cans slack-filled; contained less than the required drained weight of fruit.

² Quality variable.

FRUIT SALAD 13

BRAND AND PACKER OR DISTRIBUTOR	COST PER		COST PER
	CAN (¢)	CAN SIZE (oz.)	LB. DRAINED WEIGHT (¢)

GOOD QUALITY

<i>Baby Stuart</i> (Sprague, Warner)	23	16	27.8
<i>Canoe Club</i> (McCann)	35	30	28.6 ¹
<i>Country Club</i> (Kroger)	30	30	23.2 ²
<i>Dodge</i> (Haas Bros.) ³	26	30	19.7 ⁴
<i>Grisdale</i> (Gristede Bros.)	35	30	27.4
<i>Heart's Delight</i> (Richmond-Chase)	29	30	23.2 ¹
<i>Iris</i> (Haas, Baruch)	30	30	22.8
<i>King-Ko</i> (King's County Pack. Co.) ³	25	30	20.0 ^{1,4}
<i>Libby's</i> (Libby)	33	30	23.6 ¹
<i>Monarch</i> (Reid, Murdoch)	37	30	26.6
<i>P&G</i> (Paxton & Gallagher)	33	30	26.4
<i>R-C</i> (Richmond-Chase) ³	30	30	23.7
<i>Red & White</i> (Red & White)	27	20	28.8
<i>S&W</i> (Sussman, Wormser)	33	30	25.4
<i>Sacramento</i> (Bercut Richards) ³	25	30	18.8 ⁴
<i>White Rose</i> (Seeman Bros.)	31	30	25.8 ¹
<i>World</i> (Goldberg Bowen) ³	39	30	29.2 ⁴

FAIR QUALITY

<i>A&P</i> (A&P)	25	20	32.0 ¹
<i>All Gold</i> (H. G. Price)	17	16	25.2
<i>Cherry Valley</i> (Jewel Tea Co.)	17	16	24.2
<i>Del Monte</i> (Calif. Pack. Corp.)	30	30	22.8 ³
<i>Exquisite</i> (Santa Cruz Fruit Pack. Co.)	29	30	21.4 ³
<i>Ferdell</i> (Sprague, Warner)	17	17	21.4
<i>Grand Union</i> (Grand Union)	19	16	29.6 ¹
<i>Hunt's</i> (Hunt Bros.) ³	27	30	21.5
<i>IGA</i> (Indep. Groc. Alliance)	25	30	18.4
<i>Krasdale</i> (A. Krasne)	29	30	21.8 ³
<i>Oh-Boy</i> (Karasik Bros.)	18	15	24.5
<i>Premier</i> (F. H. Leggett)	19	16	26.4
<i>Richelieu</i> (Sprague, Warner)	43	30	31.2 ²

¹ One or more cans slack-filled because of low drained weight.

² Quality variable.

³ Available in the West only.

⁴ Below grade in syrup density.

(Cont'd next page)

14 FRUIT SALAD, PEACHES

BRAND AND PACKER OR DISTRIBUTOR	COST PER		COST PER	
	CAN (¢)	CAN SIZE (OZ.)	LB. DRAINED WEIGHT (¢)	
Rock-Dell (Younglove Grocery Co.)	20	15	25.6	
Royal Scarlet (R. C. Williams)	27	30	23.7 ¹	
Savoy (Steele-Wedeles)	35	30	27.0	
Sunbeam (Austin, Nichols)	10	8	27.8	
Trupak (Haas Bros.) ²	29	30	21.3	
USP (U. S. Products)	29	29	24.1	

¹ One or more cans slack-filled because of low drained weight.

² Available in the West only.

CANNED PEACHES

Ref.: *CU Reports*, March 1939; *Western CU Supplement*, October 1938.

—YELLOW CLING PEACHES

BRAND AND PACKER OR DISTRIBUTOR	COST PER		SYRUP DENSITY	SCORE
	No. 2 1/2 CAN (¢)			
GRADE A				
<i>Banley</i> (B. Levy) ¹	15 ^a	Heavy		96
<i>Califood</i> (Calif. Food Specialties) ¹	10	Light		90
<i>Castle Crest</i> (Gen. Food Prod.) ¹	12 ^{a,4}	Extra Heavy		96
<i>Dodge</i> (Haas Bros.) ¹	18 ^a	Heavy		94
<i>Exquisite</i> (Santa Cruz Fruit Pack.)	18	Heavy		92
<i>Fame</i> (Fame Canning Co.) ¹	18	Medium		93
<i>Gold Leaf</i> (Calif. Pack. Corp.) ¹	10 ^{a,8}	Medium		90
<i>Iris</i> (Haas, Baruch) ¹	13 ^a	Extra Heavy		93
<i>P&G</i> (Paxton & Gallagher).....	25 ^a	Extra Heavy		91
<i>Sacramento</i> (Bercut Richards) ¹	19 ^{a,4}	Medium		93
<i>Shurfine</i> (National Groc.) ¹	20 ^a	Extra Heavy		94

¹ Available in the West only.

² One or more cans slack-filled; contained less than labeled weight.

³ One or more cans slack-filled; low drained weight.

⁴ Not within specified number of pieces of fruit for grade.

⁵ 20-oz. can.

⁶ 16-oz. can.

BRAND AND PACKER OR DISTRIBUTOR	COST PER		SYRUP DENSITY	SCORE
	No. 2 1/2	CAN (¢)		
<i>Success</i> (Jacobson Shealy) ¹	10 ^{1/2}	9 ^{1/2}	Heavy	92
<i>Tom Tit</i> (Joseph Travers) ¹	9 ^{1/2}	9 ^{1/2}	Heavy	90
<i>Wellman</i> (Wellman-Peck) ¹	12 ⁷	12 ⁷	Heavy	92
<i>Westlake</i> (Briardale Stores) ¹	18	18	Medium	95
<i>Xtra-Nice</i> (Smith, Lynden) ¹	10 ^{1/2}	10 ^{1/2}	Medium	93

GRADE B

<i>A&P</i> (A&P)	17 ^a	17 ^a	Medium-Heavy	78
<i>Amocat</i> (West Coast Groc.)	25 ^a	25 ^a	Extra Heavy	88
<i>Blue & White</i> (Red & White)	19	19	Medium	79
<i>Blue Winner</i> (Turlock Coop. Growers) ¹	13	13	Medium	81
<i>Bonnie Best</i> (Younglove Groc. Co.)	19 ^a	19 ^a	Heavy	80
<i>Briardale</i> (United Grocers) ¹	12 ⁷	12 ⁷	Extra Heavy	86
<i>Brimfull</i> (H. A. Marr)	21 ^a	21 ^a	Medium	86
<i>Century</i> (Sussman, Wormser) ¹	12 ^a	12 ^a	Heavy	81
<i>Club House</i> (Franklin MacVeagh)	25 ^a	25 ^a	Medium	79
<i>Co-op</i> (East. Coop. Wh'les'le)	13 ^a	13 ^a	Heavy	81
<i>Cosmos</i> (Sussman, Wormser) ¹	14	14	Medium	84
<i>Country Club</i> (Kroger)	15	15	Medium	77
<i>Del Monte</i> (Calif. Pack. Corp.)	15	15	Medium-Heavy	78
<i>Highway</i> (Gen. Food Prod.) ¹	13	13	Medium	88
<i>Hunt's Superior Quality</i> (Hunt Bros.)	17 ^a	17 ^a	Heavy	75
<i>IGA</i> (Indep. Groc. Alliance)	20 ^a	20 ^a	Extra Heavy	90 ^a
<i>Jack Sprat</i> (Jack Sprat Foods)	21	21	Medium-Heavy	83

¹ Available in the West only.² One or more cans slack-filled; contained less than labeled weight.³ One or more cans slack-filled; low drained weight.⁴ Not within specified number of pieces of fruit for grade.⁵ 16-oz. can.⁶ 15-oz. can.⁷ Uniformity too poor for Grade A rating.

16 PEACHES

BRAND AND PACKER OR DISTRIBUTOR	COST PER		SYRUP DENSITY	SCORE
	No. 2 1/2	CAN (¢)		
<i>Libby's</i> (Libby)	16		Medium-Heavy	80
<i>Macy's Lily White</i> (Macy) ..	21 ^a		Extra Heavy	80
<i>Maid Rite</i> (Kockos Bros.) ¹ ..	15 ^a		Medium	88
<i>Marco</i> (H. A. Marr)	23		Medium-Heavy	88
<i>Monarch</i> (Reid, Murdoch) ..	24 ^a		Heavy	85
<i>Palace</i> (Haas Bros.) ¹	16		Medium	79
<i>Red & White</i> (Red & White)	17 ^a		Medium-Heavy	81
<i>Reeves' Best</i> (Daniel Reeves)	18		Extra Heavy	79
<i>Richelieu</i> (Sprague, War- ner)	40		Extra Heavy	83
<i>S&W</i> (Sussman, Wormser) ..	25		Extra Heavy	84
<i>St. Francis</i> (Visalia Canning Co.)	12 ^a		Heavy	79
<i>Sunny Smile</i> (Tri Valley Pack. Ass'n) ¹	12		Medium	87
<i>Sweet Girl</i> (Sterling Food Prod.)	18 ^a		Heavy	77
<i>White Rose</i> (Seeman Bros.) ..	16 ^a		Medium-Heavy	79
<i>White Rose DeLuxe</i>	29 ^a		Extra Heavy	82
<i>Winmore</i> (Calbear Can- neries) ¹	12		Medium	86
<i>Yellowstone</i> (Paxton & Gal- lagher)	19 ^a		Extra Heavy	78

GRADE C

<i>Avondale</i> (Kroger)	13 ^a		Medium	70
<i>Grand Union</i> (Grand Union)	15		Heavy	73
<i>Hemet</i> (Hemet Pack. Co.) ¹ ..	13		Medium	72
<i>Iona</i> (A&P)	14		Medium	74
<i>Krasdale</i> (A. Krasne)	15 ^a		Heavy	70
<i>Mission Inn</i> (Hemet Pack. Co.) ¹	13		Medium	72
<i>New Day</i> (Harcourt Greene) ¹	14 ^a		Medium	74
<i>Oh-Boy</i> (Karasik Bros.)	19 ^a		Medium	69
<i>Premier</i> (F. H. Leggett) ...	19		Medium	74

¹ Available in the West only.

^a One or more cans slack-filled; low drained weight.

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2½ CAN (¢)	SYRUP DENSITY	SCORE
<i>Rose-Dale</i> (Libby)	16 ^a	Medium	74
<i>Royal Scarlet</i> (R. C. Williams)	21 ^a	Medium-Extra Heavy	72
<i>Stokely's</i> (Stokely Bros) ...	15	Medium	73
<i>Sunnyside</i> (Geo. E. Hyde) ¹	8 ^r	Medium	72
<i>Virden's</i> (Virden Can. Co.) ¹	8 ^a	Medium	73

—FREESTONE PEACHES

There are no established government grades for freestone peaches. Many people consider them more tasty than the more commonly canned yellow cling variety, even though they lack the uniformity and symmetry of the latter. The following list makes no attempt to rate the quality of freestone peaches; it is simply an indication of their cost and availability.

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2½ CAN (¢)	SYRUP DENSITY	SCORE
<i>Amocat</i> (West Coast Groc. Co.)	25	Heavy	..
<i>Co-op Elberta</i> (Eastern Coop. Wholesale)	23	Medium-Heavy	..
<i>Co-op Home Style</i> (Eastern Coop. Wholesale)	17	Heavy	..
<i>Heart's Delight</i> (Richmond-Chase)	21	Medium-Heavy	..
<i>Hunt's Supreme Quality</i> (Hunt Bros.)	22	Heavy	..
<i>IGA Ripe 'n-Ragged</i> (Indep. Groc. Alliance)...	23	Medium-Heavy	..
<i>Macy's Lily White</i> (Macy).	27	Heavy	..
<i>P&G</i> (Paxton & Gallagher)	24	Extra Heavy	..
<i>Prattlow</i> (Pratt-Low)	24	Extra Heavy	..
<i>Richelieu Raggedy Ann</i> (Sprague, Warner)	27	Extra Heavy	..

¹ Available in the West only.

^a One or more cans slack-filled; low drained weight.

^r 16-oz. can.

^a 15-oz. can.

18 PEARS, ASPARAGUS

CANNED PEARS

The last report on canned pears was published in November 1937. New tests are being planned as the *Buying Guide* goes to press.

CANNED VEGETABLES

CANNED ASPARAGUS (Plain)

Ref.: CU Reports and Western CU Supplement, March 1939.

BRAND AND PACKER OR DISTRIBUTOR	COST PER		
	TYPE	No. 2 CAN	SCORE
		(¢)	
GRADE A			
<i>A&P</i> (A&P)	Green	27	92
<i>Briardale</i> (Spartan Grocers) ¹	Green	25	95
<i>Clover Farm</i> (Clover Farm Stores) ..	Green	37 ^a	90
<i>Del Monte</i> (Calif. Pack. Corp.)....	Green	29	91
<i>Exquisite</i> (Santa Cruz Fruit Pack.) ²	Green	25	95
<i>Fairway</i> (Twin City Wholesale Groc.)	Green	32	91
<i>Finer Flavor</i> (M. A. Newmark) ¹	White	15 ^a	91
<i>Hills-Dale</i> (Emery Food Co.) ¹	White	24 ^a	93
<i>Jack Sprat</i> (Jack Sprat Foods)....	Green	25 ^a	90
<i>P&G</i> (Paxton & Gallagher).....	Green	34 ^a	91
<i>Prattlow</i> (Pratt-Low)	Green	28	93
<i>Red & White</i> (Red & White).....	Green	29 ^a	92
<i>Silver Thistle</i> (Weilman-Peck) ¹	White	22	92
<i>Warranty</i> (Elmhurst Packers).....	Green	32 ^a	90
<i>Wellman</i> (Wellman-Peck) ¹	Green	30	93
<i>White Rose</i> (Seeman Bros.).....	Green	31	92
GRADE C			
<i>A&P</i> (A&P)	White	23	87
<i>All Good</i> (F. M. Ball) ¹	White	15 ^a	80
<i>Banquet</i> (Calif. Pack. Corp.) ¹	White	15	89
<i>Booth's Crescent</i> (F. E. Booth) ¹	White	15 ^a	89
<i>Club House</i> (Franklin MacVeagh) ..	White	24	87

¹ Available in the West only.

² One or more cans slack-filled; low drained weight.

^a 15-oz. can.

^b 31-oz. can.

^c 15-oz. can.

BRAND AND PACKER OR DISTRIBUTOR	TYPE	COST PER	
		No. 2 CAN	SCORE
		(¢)	
<i>Country Club</i> (Kroger).....	Green	27 ^a	89
<i>Del Monte</i> (Calif. Pack. Corp.)....	White	24	86
<i>Dodge</i> (Haas Bros.) ¹	White	20	87
<i>Grand Union</i> (Grand Union) ^a	Green	29 ^a	91
<i>Hunt's Supreme</i> (Hunt Bros.) ^a	Green	30 ^a	89
<i>Iris</i> (Haas, Baruch).....	Green	26 ^a	89
<i>Krasdale</i> (A. Krasne).....	White	25	89
<i>Libby's</i> (Libby)	Green	30 ^a	89
<i>Macy's Lily White</i> (Macy).....	White	27	87
<i>Marco</i> (H. A. Marr).....	Green	33	85
<i>Mission</i> (Calif. Pack. Corp.) ¹	White	23	88
<i>Monarch</i> (Reid, Murdoch).....	Green	33	89
<i>Premier</i> (F. H. Leggett).....	Green	33 ^a	88
<i>R-C</i> (Richmond-Chase) ¹	White	30	88
<i>Rialto</i> (Western Calif. Cannery) ¹	White	15 ^b	85
<i>Richelieu</i> (Sprague, Warner).....	Green	30 ^a	79
<i>Rock Dell</i> (Younglove Grocery)....	Green	25 ^a	88
<i>Royal Scarlet</i> (R. C. Williams) ^a	Green	32	91
<i>S&W</i> (S&W Fine Foods).....	White	27	87
<i>Sacramento</i> (Bercut Richards)....	White	16 ^b	88
<i>Trupak</i> (Haas Bros.) ^{1,a}	White	21	90
<i>Westlake</i> (United Grocers) ¹	White	19 ^a	87
<i>White Rose</i> (Seeman Bros.) ^a	White	19 ^a	90

¹ Available in the West only.

² One or more cans slack-filled; low drained weight.

^b 16-oz. can.

^a 15-oz. can.

^a Although these brands were within the numerical score for Grade A, they were rated as Grade C because one or more cans failed to meet the Grade A specification for tenderness and texture.

CANNED ASPARAGUS TIPS

Ref.: CU Reports and Western CU Supplement, March 1939.

BRAND AND PACKER OR DISTRIBUTOR	TYPE	COST PER	
		No. 2 CAN	SCORE
		(¢)	
GRADE A			
<i>Royal Scarlet</i> (R. C. Williams)....	Green	35 ¹	93
<i>Sunbeam</i> (Austin, Nichols).....	White	29 ¹	91

¹ 16-oz. can.

(Cont'd next page)

20 ASPARAGUS, BAKED BEANS

BRAND AND PACKER OR DISTRIBUTOR	COST PER	
	TYPE NO. 2 CAN	SCORE
	(¢)	

GRADE C

<i>Del Monte</i> (Calif. Pack. Corp.) ¹ ... White	25 ¹	91
<i>Ferndell</i> (Sprague, Warner)..... White	33 ¹	88
<i>Heart's Delight</i> (Richmond-Chase) ² White	29 ¹	90
<i>Mission</i> (Calif. Pack. Corp.)..... White	13 ²	92
<i>Palmdale</i> (Sussman, Wormser) ¹ Green	26	83
<i>Prattlow</i> (Pratt-Low) White	15 ²	88
<i>Premier</i> (F. H. Leggett)..... White	17 ²	88
<i>Roosevelt</i> (Karasik Bros.)..... Green	35 ¹	87
<i>Royal Scarlet</i> (R. C. Williams).... White	29 ¹	88

¹ 16-oz. can.

² Although these brands were within the numerical score for Grade A, they were rated as Grade C because one or more cans failed to meet the Grade A specifications for tenderness and texture.

³ 10½-oz. can.

CANNED BAKED BEANS

Canned baked beans are rated as Grade A, Grade C and Substandard. There is no Grade B. From season to season little variation appears in a brand.

The cost per can is not given in the following tables because of the great variety in can sizes.

Ref.: *CU Reports*, December 1937. *

BRAND AND PACKER OR DISTRIBUTOR	AVERAGE COST	
	PER LB. (¢)	SCORE

—WITH TOMATO SAUCE

GRADE A

<i>Ann Page</i> (A&P).....	7.5	88 ¹
<i>Armour's</i> (Armour)	7.4	88
<i>Blue & White</i> (Red & White).....	10	92
<i>Campbell's</i> (Campbell Soup Co.)....	8.3	90
<i>Heinz</i> (H. J. Heinz).....	13	93 ¹
<i>Libby's</i> (Libby)	7	90 ¹
<i>Libby's Deep Brown</i> (Libby).....	10	91
<i>Monarch</i> (Reid, Murdoch).....	6	85 ¹
<i>Premier</i> (F. H. Leggett).....	7.6	88

¹ One or more cans of these tested slack-filled.

BAKED BEANS, CORN 21

BRAND AND PACKER OR DISTRIBUTOR	AVERAGE COST PER LB. (¢)	SCORE
<i>Red & White</i> (Red & White).....	10	94
<i>Ritter</i> (P. J. Ritter).....	7	89
<i>Royal Scarlet</i> (R. C. Williams).....	7	88
<i>Van Camp's</i> (Van Camp's).....	9	89 ¹
<i>White Rose</i> (Seeman Bros.).....	10.4	91 ¹

GRADE C

<i>Phillips</i> (Phillips Pack. Co.).....	7	84
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—WITH PLAIN SAUCE

GRADE A

<i>B&M</i> (Burnham & Morrill).....	10.9	92
<i>Bean Hole</i> (Van Camp's).....	9.3	90
<i>Co-op</i> (Eastern and Central Coop.)	8.6	88
<i>Friend's</i> (Friend Bros.).....	10.9	91
<i>Macy's Lily White</i> (Macy).....	10.9	92 ¹
<i>Red & White</i> (Red & White).....	9.7	92 ¹

GRADE C

<i>Heinz</i> (H. J. Heinz).....	13	82
<i>Libby's</i> (Libby)	10.3	83
<i>Monarch</i> (Reid, Murdoch).....	9.2	81

¹ One or more cans of those tested slack-filled.

CANNED CORN

The following varieties of canned corn were tested: Country Gentleman, Golden Bantam, Tiny Kernel, Crosby, Sugar, Golden, Deloro Bantam, Baby Bantam, White, Shoe Peg. Not all varieties, however, were tested in each brand.

A No. 2 can of corn contains 1 lb., 4 oz.

Ref.: *CU Reports*, March 1938.

—CREAM STYLE

BRAND AND PACKER OR DISTRIBUTOR	COST PER NO. 2 CAN (¢)	SCORE
GRADE A		
<i>A&P</i> (A&P)	12	90
<i>American Beauty</i> (Morgan Pack. Co.)...	10	92

(Cont'd next page)

22 CORN

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 Can (¢)	SCORE
<i>Avondale</i> (Kroger)	9	91
<i>B&M</i> (Burnham & Morrill)	11	91
<i>Eleo</i> (L. Cohen)	15	92
<i>Freshpak</i> (Grand Union)	13	91
<i>Monarch</i> (Reid, Murdoch)	15	90
<i>Scott Co.</i> (Morgan Pack. Co.)	10	90
<i>White Rose</i> (Seeman Bros.)	15	90

GRADE B

<i>Baby Stuart</i> (Sprague, Warner)	15	83
<i>Big M</i> (H. A. Marr)	13	76
<i>Blue & White</i> (Red & White)	13	83
<i>Brimfull</i> (H. A. Marr)	14 ¹	78 ^a
<i>Cayuga</i> (H. C. Hemingway)	11	87
<i>Co-op</i> (Eastern & Central Coop. Wholesale)	14	78 ^a
<i>Country Club</i> (Kroger)	15	85
<i>Del Maiz</i> (Minn. Valley Can. Co.)	12 ^a	86
<i>Del Monte</i> (Calif. Pack. Corp.)	14	88
<i>Exquisite</i> (Santa Cruz Fruit Pack. Co.) ...	15	84
<i>Ferndell</i> (Sprague, Warner)	25	86
<i>Fi-Na-St</i> (First National Stores)	13	87
<i>Geneva</i> (Geneva Preserv. Co.)	14	84
<i>Gerbros</i> (Gerber Bros.)	10 ^a	85
<i>IGA</i> (Indep. Groc. Alliance)	15	85
<i>Iona</i> (A&P)	9	80
<i>Krasdale</i> (A. Krasne)	15 ^a	81
<i>Kuner's</i> (Kuner Pickle Co.)	14	89
<i>Libby's</i> (Libby)	14	83 ^a
<i>National</i> (National Tea)	15	79
<i>Phillips</i> (Phillips Pack. Co.)	10	73
<i>Red & White</i> (Red & White)	16	86
<i>Reeves' Best</i> (Reeves)	15	86
<i>Richelieu</i> (Sprague, Warner)	18	84 ^a
<i>Rose-Dale</i> (Libby)	14	88 ^a
<i>Royal Scarlet</i> (R. C. Williams)	15	80

¹ One or more cans slack-filled.^a Quality variable.^b Not a No. 2 can; contained 17 oz.^c Not a No. 2 can; contained 11 oz.^d Not a No. 2 can; contained 16 oz.

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)	SCORE
<i>S&W</i> (Sussman, Wormser).....	17	85
<i>Solitaire</i> (Morey Mercantile).....	15	86
<i>Sunbeam</i> (Austin, Nichols).....	15	82
<i>Sweet Girl</i> (Sterling Food).....	14	85

GRADE C

<i>Premier</i> (F. H. Leggett).....	13 ^a	69
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SUBSTANDARD

<i>May-Field</i> (Edinburgh Canning Co.).....	8	54
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^a Not a No. 2 can; contained 16 oz.

CANNED CORN—WHOLE KERNEL

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)	COST PER OZ. DRAINED WEIGHT (¢)	SCORE
GRADE A			
<i>A&P</i> (A&P)	10	0.7	94
<i>Brimfull</i> (H. A. Marr).....	12 ¹	0.9	93 ^a
<i>Co-op</i> (Central Coop. Wholesale)	15	1.1	94
<i>Del Monte</i> (Calif. Pack. Corp.)..	14 ¹	0.9	91
<i>Elco</i> (L. Cohen).....	14	1.0	92
<i>Exquisite</i> (Santa Cruz Fruit Packers)	16	1.1	91
<i>Ferndell</i> (Sprague, Warner)....	25	1.9	94
<i>Kuner's</i> (Kuner Pickle Co.)....	14 ¹	0.9	93
<i>Libby's</i> (Libby)	15	1.0	91
<i>P&G</i> (Paxton & Gallagher).....	15	1.1	90
<i>Premier</i> (F. H. Leggett).....	15 ¹	1.0	90
<i>Red & White</i> (Red & White)..<	15	1.0	91 ^a
<i>Reeves' Best</i> (Reeves).....	14 ¹	0.9	94
<i>Richelieu</i> (Sprague, Warner)...	20	1.4	90
<i>Royal Scarlet</i> (R. C. Williams). 13 ¹		0.8	92

¹ Vacuum-packed cans; contained 12 oz., no liquid.

^a Quality variable.

(Cont'd next page)

24 CORN, GREEN BEANS

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)	COST PER OZ. DRAINED WEIGHT		SCORE
		(¢)	(¢)	
S&W (Sussman, Wormser).....	19	1.3		91 ^a
Solitaire (Morey Mercantile)...	15 ¹	0.9		90
GRADE B				
B&M (Burnham & Morrill).....	15	1.0		78
Cayuga (H. C. Hemingway)....	12	0.8		89
Country Club (Kroger).....	15	1.0		88
Fi-Na-St (First National Stores)	14	1.0		89 ^a
Geneva (Geneva Preserv. Co.)..	14	1.0		98
Grand Union (Grand Union)...	15 ¹	1.0		78
IGA (Indep. Groc. Alliance)....	15 ¹	1.0		87
Jack Sprat (Jack Sprat Foods)..	15	1.0		86
Krasdale (A. Krasne).....	15 ^{2,4}	1.0		79 ^a
Marco (H. A. Marr).....	14 ¹	0.9		88
Monarch (Reid, Murdoch).....	16	1.0		83 ^a
Niblets (Minn. Valley Can. Co.)	14 ¹	0.9		89
Rose-Dale (Libby)	15	1.0		76
White Rose (Seeman Bros.)....	19	1.3		79

¹ Vacuum-packed cans; contained 12 oz., no liquid.

² Quality variable.

³ One or more cans slack-filled.

⁴ Not a No. 2 can; contained 16 oz.

CANNED GREEN BEANS

Green beans may be packed several ways: Asparagus style (in which the pods are approximately equal in length and packed parallel), Whole (in which whole pods are used, but without special arrangement in packing), Cut (in which the pods are packed in pieces 1 to 2½ inches in length), and Shoestring (shredded).

Standards of the U. S. Dep't of Agriculture, according to which samples of the brands below are rated, cover the following points: flavor, maturity, absence of defects, uniformity of size, uniformity of color, clearness of liquor.

The price per can of whole green beans referred to below may be either ordinary whole beans or asparagus style pack.

Ref.: *CU Reports*, June 1938; *Western CU Supplement*, July 1938.

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (#)		
	Cut	Whole	Score

GRADE A

<i>A&P</i> (A&P)	21	94 ¹
<i>Bohack's</i> (H. C. Bohack)	19	92
<i>Canoes Club</i> (McCann & Co.)	23	92
<i>Cherry Valley</i> (Jewel Tea Co.)	10	91
<i>Circle S</i> (Louis Snow) ²	15	92
<i>Co-op</i> (Eastern Coop. Wholesale)	19	93
<i>Country Club</i> (Kroger)	20	93
<i>Del Monte</i> (Calif. Pack. Corp.)	15	18 93
<i>Diamond A</i> (Eugene Fruit Growers Ass'n) ³	11	92
<i>Dodge</i> (Haas Bros.) ²	13	93
<i>Ferndell</i> (Sprague, Warner)	19	93
<i>Grand Union</i> (Grand Union)	19	93
<i>Grisdale</i> (Gristede Bros.)	27	93
<i>Hart</i> (W. R. Roach)	16	92
<i>Highway</i> (Gen. Food Prod.) ²	10	93
<i>IGA</i> (Indep. Groc. Alliance)	16	20 91
<i>Irrington Club</i> (Golden West Pack. Co.) ³	15	91
<i>Kockos</i> (Kockos Bros.) ²	19	91
<i>Krasdale</i> (A. Krasne)	17	19 93
<i>Libby's</i> (Libby)	13	19 92
<i>Luxus</i> (Haas Bros.) ²	13	90
<i>McKensie</i> (Eugene Fruit Growers Ass'n) ²	9	93
<i>Monarch</i> (Reid, Murdoch)	17	23 94
<i>Nu-Deal</i> (V. Traverso) ²	10	93
<i>Oh-Boy</i> (Karasik Bros.)	13	90
<i>P&G</i> (Paxton & Gallagher)	19	94
<i>Premier</i> (F. H. Leggett)	18	23 93
<i>Red & White</i> (Red & White)	17	92
<i>Reeves' Best</i> (Daniel Reeves)	23	94
<i>Richelieu</i> (Sprague, Warner)	19	28 93
<i>Rock Dell</i> (Younglove Groc. Co.)	20	93 ¹
<i>S&W</i> (Sussman, Wormser)	17	23 93
<i>Santavalley</i> (Barron-Gray Co.) ²	18 ⁴	93

¹ One or more cans slack-filled.² Available in the West only.⁴ Price of 1 lb., 1 oz. can.

26 GREEN BEANS

BRAND AND PACKER OR DISTRIBUTOR	COST PER		
	No. 2 CAN (¢)		SCORE
	Cut	Whole	
<i>Sheffield</i> (Sheffield Farms Co.).....		23	94
<i>Sun-Blest</i> (Jacobson Shealy) ²	15		94
<i>Three Sisters</i> (Eugene Fruit Growers) ²	9		93
<i>Trupak</i> (Haas Bros.) ²	16	23	92
<i>Wellman</i> (Wellman-Peck) ²		21	91
<i>White Rose</i> (Seeman Bros.).....	16	21	90
<i>World</i> (Goldberg Bowen) ²		30	92

GRADE B

<i>Alta Villa</i> (Greco Canning Co.) ²	9		89
<i>Avondale</i> (Kroger)	13		81
<i>Blue Bell</i> (Sauquoit Canning Co.)....	10		89
<i>Blue Dell</i> (Golden West Pack. Co.) ² ..	9		89
<i>Blue & White</i> (Red & White).....	14		86*
<i>Cayuga</i> (H. C. Hemingway).....	12		84
<i>Cosmos</i> (Sussman, Wormser) ²	12		83
<i>Exquisite</i> (Santa Cruz Fruit Pack. Co.)	15		75
<i>Gibbs</i> (Gibbs & Co.).....	13		76
<i>Green-Glo</i> (Albert W. Sisk).....	9		79
<i>Integrity</i> (Greco Canning Co.) ²	11		84
<i>Iona</i> (A&P)	8		75
<i>Jack Sprat</i> (Jack Sprat Foods).....	15		78
<i>Kuner's</i> (Kuner Pickle Co.).....	14		85
<i>Lady Helen</i> (Greco Canning Co.) ²	10		81
<i>Marcellus</i> (W. R. Roach).....	9		79
<i>Reliable</i> (A&P)	16		81
<i>Stokely's</i> (Stokely Bros.).....	13	15	83*
<i>Sweet Girl</i> (Sterling Food Prod.).....	15		89

GRADE C

<i>Abasco</i> (Phillips Pack. Co.).....	10		69
<i>Castle Haven</i> (Phillips).....	9		69
<i>Consumers Co-op</i> (Nor. Pacific Co-op)	15		69 ¹
<i>Dinette</i> (The Family Kitchen) ²	10		73

¹ One or more cans slack-filled.

² Available in the West only.

³ Quality variable.

GREEN BEANS, PEAS 27

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)		SCORE
	Cut	Whole	
<i>Glen Oaks</i> (Gen. Food Prod.) ¹	10		73
<i>Industry</i> (Gen. Food Prod.) ²	9		73 ¹
<i>Phillips</i> (Phillips)	8		72
<i>Pine Cone</i> (Albert W. Sisk).....	10		72
<i>Sere-U-Rite</i> (Krier Preserv. Co.).....	10		65
<i>USB4</i> (Burton, Proctor).....	8		70

SUBSTANDARD

<i>Sunnybrae</i> (San Jose Can. Co.) ³	9 ¹		
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¹ One or more cans slack-filled.

² Available in the West only.

³ One can consisted mainly of ends of pods.

CANNED PEAS

Ref.: *CU Reports*, May 1938; *Western CU Supplement*, September 1938.

BRAND AND PACKER OR DISTRIBUTOR	COST	CAN	SCORE
	PER CAN (¢)	SIZE (Oz.)	
GRADE A			
A&P (A&P)	16	20	93
Amocat (West Coast Groc. Co.).....	18	20	90
Blue & White (Red & White).....	14	20	90
Del Monte (Calif. Pack. Corp.).....	16	20	91
Freshpak (Grand Union).....	21	20	91
Grand Union (Grand Union).....	23	20	91
IGA (Indep. Groc. Alliance).....	15	20	90
Monarch (Reid, Murdoch).....	19	20	90
R-C (Richmond-Chase) ¹	16	20	94
Rock Dell (Younglove Groc. Co.) ¹ ...	20	20	90
Santavalley (Barron-Gray Pack. Co.).	14	20	91 ²
Snider (Snider Pack. Co.).....	15	10½	91

¹ Available in the West only.

² Quality variable.

(Cont'd next page)

28 PEAS

BRAND AND PACKER OR DISTRIBUTOR	COST PER CAN (¢)	CAN SIZE (Oz.)	SCORE
<i>Briardale</i> (Briardale Co.) ¹	20	20	89 ^a
<i>Brimfull</i> (H. A. Marr).....	15	20	86
<i>Century</i> (Sussman, Wormser) ¹	11	20	82
<i>Co-op</i> (Eastern Coop. Wholesale)....	17	20	85
<i>Co-op</i> (Coop. Wholesale, Inc.).....	17	20	84
<i>Cosmos</i> (Sussman, Wormser) ¹	10	20	80 ^a
<i>Country Club</i> (Kroger).....	16	20	85
<i>Dodge</i> (Haas Bros.) ¹	15	19	85
<i>Fame</i> (Fame Canning Co.) ¹	15	20	81
<i>Fi-Na-St</i> (First National Stores).....	19	20	88
<i>Gold Leaf</i> (Calif. Pack. Corp.) ¹	10	20	80 ^a
<i>Green Giant</i> (Minn. Valley Canning Co.).....	17	20	87
<i>Happy Vale</i> (Emery Food Co.) ¹	10	20	82
<i>Highway</i> (Gen. Food Prod.) ¹	10	20	82
<i>Industry</i> (Gen. Food Prod.) ¹	9	20	79 ^a
<i>Jack Sprat</i> (Jack Sprat Foods).....	16	20	84
<i>Kockos</i> (Kockos Bros.) ¹	15	20	83 ^a
<i>Kuner's</i> (Kuner Pickle Co.).....	17	20	88
<i>Macy's Lily White</i> (Macy).....	22	20	88
<i>Marco</i> (H. A. Marr).....	20	20	88
<i>Premier</i> (F. H. Leggett).....	22	20	88
<i>Red Label</i> (S. S. Pierce).....	29	20	87
<i>Red & White</i> (Red & White).....	19	20	85
<i>Reliable</i> (A&P).....	15	20	84
<i>Richelieu</i> (Sprague, Warner).....	25	20	88
<i>Royal Scarlet</i> (R. C. Williams).....	21	20	86 ^a
<i>Shurfine</i> (National Grocers) ¹	15	20	88 ^a
<i>Solitaire</i> (Morey Mercantile Co.).....	18	20	81
<i>Stokely's</i> (Stokely Bros.).....	15	20	87
<i>Sultana</i> (A&P).....	13	20	87
<i>Sun-Blest</i> (Jacobson Shealy) ¹	11	10½	84 ^a
<i>Sweet Blossom</i> (Bozeman Can. Co.) ¹	5	11	87
<i>Trupak</i> (Haas Bros.) ¹	14	19	83
<i>Wellman</i> (Wellman-Peck) ¹	15	20	81
<i>Westlake</i> (Briardale Co.) ¹	14	20	89
<i>White Rose</i> (Seeman Bros.).....	21	20	88

¹ Available in the West only.² Quality variable.

PEAS, TOMATOES 29

BRAND AND PACKER OR DISTRIBUTOR	COST PER CAN (¢)	CAN SIZE (¢)	SCORE
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GRADE C

<i>Cayuga</i> (H. C. Hemingway).....	13	20	68
<i>Cottage</i> (Hunt Bros. Pack. Co.) ¹	10	19	76 ^a
<i>Empson's</i> (Empson Pack. Co.).....	12	20	71
<i>Five Bros.</i> (Miller & Co.) ¹	5	8	73 ^a
<i>Hunt's Supreme</i> (Hunt Bros.) ¹	9	16	77 ^a
<i>Iona</i> (A&P)	9	20	71
<i>Lily of the Valley</i> (Snider Pack. Co.)	19	20	73
<i>Milton</i> (P. J. Burk Can. Co.) ¹	6	10 1/4	72 ^a
<i>Official</i> (Clyman Can. Co.).....	9	20	69
<i>Tastewell</i> (National Grocers) ¹	10	20	77 ^a

SUBSTANDARD

<i>Iris</i> (Haas, Baruch) ¹	16	20	*
<i>Libby's</i> (Libby)	16	20	2.
<i>Phillips</i> (Phillips Can. Co.).....	9	20	49

¹ Available in the West only.

² Quality variable.

³ Grade C because of overripeness and poor flavor.

⁴ One can tested showed presence of foreign material.

⁵ One can Substandard because of extremely poor flavor, another can Grade C.

CANNED TOMATOES

Ref.: CU Reports and Western CU Supplement, February 1939.

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)	COST PER Lb. (¢)	SCORE
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GRADE A

<i>C-H-B</i> (Calif. Conserv. Co.) ¹	14 ^a	8.0	94
<i>Newmark</i> (M. A. Newmark) ¹	13 ^a	7.4	91

¹ Available in the West only.

² Price given for No. 2 1/2 can (1 lb., 12 oz., or 1 lb., 13 oz.).

(Cont'd next page)

30 TOMATOES

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)	COST PER LB. (¢)	SCORE
<i>Premier</i> (F. H. Leggett).....	19	16.0	92
<i>Red & White</i> (Red & White).....	17 ^a	10.1	90
<i>Richelieu</i> (Sprague, Warner)	25 ^a	14.3	94

GRADE B

<i>Amocat</i> (West Coast Groc. Co.)....	13	11.0	84
<i>Ben Lomond</i> (F. M. Ball) ¹	10 ^a	5.7	79
<i>Briardale</i> (United Grocers).....	16 ^a	9.2	86
<i>Clover Farm</i> (Clover Farm Stores)..	15	12.6	83
<i>Co-op</i> (Eastern Coop. Wholesale)...	13	11.0	80
<i>Country Club</i> (Kroger).....	14	11.8	81
<i>Dellford</i> (Middendorf & Rohrs)....	19 ^a	10.9	82
<i>Del Monte</i> (Calif. Pack. Corp.)....	12	10.1	83 ^a
<i>Dodge</i> (Haas Bros.) ¹	14 ^a	8.0	89
<i>Fairway</i> (Twin City Wholesale Groc.)	12	10.1	81
<i>Freshpak</i> (Grand Union).....	13 ^a	7.4	79
<i>Grand Union</i> (Grand Union).....	13	11.0	85
<i>Integrity DeLuxe</i> (Greco Co.) ¹	10 ^a	5.7	80
<i>Iona</i> (A&P)	7	5.9	78
<i>Iris</i> (Haas, Baruch)	12	10.1	82 ^a
<i>Jack Sprat</i> (Jack Sprat Foods).....	14	11.8	88
<i>Krasdale</i> (A. Krasne).....	15 ^a	8.6	78
<i>Lily of the Valley</i> (National Groc. Co.)	14	11.8	84
<i>Masterpiece</i> (Calif. Sanitary Co.) ¹ ..	11 ^a	6.3	87
<i>Michigan</i> (Beutel Co.).....	13 ^a	7.7	83
<i>Reeves' Best</i> (Daniel Reeves).....	13	11.0	89
<i>Rose-Dale</i> (Libby)	15 ^a	8.6	78
<i>Royal Scarlet</i> (R. C. Williams)....	14	11.8	87
<i>S&W</i> (Sussman, Wormser).....	12	10.1	83 ^a
<i>Sacramento</i> (Bercut Richards) ¹	13 ^a	7.4	82 ^a
<i>Saracen</i> (Emery Food Co.).....	10	8.4	85
<i>Scott Co.</i> (Morgan Pack. Co.).....	12 ^a	6.9	75
<i>Stokely's</i> (Stokely)	15 ^a	8.9	84
<i>Sunbeam</i> (Austin, Nichols).....	11	9.3	87

¹ Available in the West only.

² Price given for No. 2½ can (1 lb., 12 oz., or 1 lb., 13 oz.).

^a Quality variable.

TOMATOES 31

BRAND AND PACKER OR DISTRIBUTOR	COST PER No. 2 CAN (¢)	COST PER LB. (¢)	SCORE
<i>Sweet Girl</i> (Sterling Food Products)	13	11.0	84
<i>Wellman</i> (Wellman-Peck) ¹	10	8.4	79
<i>Westgift</i> (Calif. Tomato Juice, Inc.)	11 ³	6.3	80
<i>Yacht Club</i> (Reid, Murdoch) ¹	14 ³	8.0	75

GRADE C

<i>Big M</i> (H. A. Marr).....	12 ³	7.1	73
<i>Happy-Vale</i> (Emery Food Co.).....	9	7.6	72
<i>Kuner's</i> (Kuner Pickle Co.).....	10	8.4	73
<i>Phillips</i> (Phillips)	15 ³	8.9	72
<i>Pride of the Farm</i> (Thomas Roberts)	15 ³	8.6	72
<i>Willow Brook</i> (Phillips).....	8	6.7	72

SUBSTANDARD

One or more samples of the following brands were Sub-standard because of their low drained weight:

<i>A&P</i> (A&P)	13	11.0	81
<i>California Girl</i> (Calif. San. Co.) ¹ ..	9 ³	5.1	83 ³
<i>Exquisite</i> (Santa Cruz Fruit Pack.)	15 ³	8.6	71
<i>Fairmont</i> (Tacoma Groc. Co.).....	10 ⁴	10.7	75
<i>Libby's</i> (Libby)	11	9.3	73
<i>Macy's Lily White</i> (Macy).....	13	11.0	78 ³
<i>Silver-Dale</i> (Emery Food Co.).....	8	6.7	72
<i>Val Vita</i> (Val Vita Prod.) ¹	11 ³	6.3	75
<i>White Rose</i> (Seeman Bros.).....	12	10.1	80
<i>Yellowstone</i> (Paxton & Gallagher)	14	11.8	76 ³

¹ Available in the West only.

² Price given for No. 2½ can (1 lb., 12 oz., or 1 lb., 13 oz.).

³ Quality variable.

⁴ Price given for 15-oz. can.

—TOMATOES WITH PUREE FROM TRIMMINGS

The government standards permit the addition to canned tomatoes of certain products (trimming, &c.) from other tomatoes, provided the cans are labeled, "Tomatoes with puree from trimmings." The following brands were so labeled:

(Cont'd next page)

32 TOMATOES, TOMATO JUICE

BRAND AND PACKER OR DISTRIBUTOR	COST PER		SCORE
	No. 2½ CAN (¢)	Lb. (¢)	
GRADE B			
<i>Bazaar</i> (D. D. Fiore) ¹	10	5.7	76
<i>Highway</i> (Gen. Food Prod.) ¹ ...	9	5.1	77
SUBSTANDARD			
<i>Mariposa</i> (Calif. San. Can. Co.) ¹	8	4.6	75
<i>Palace</i> (Haas Bros.) ¹	10	5.7	75
<i>Taste Tells</i> (Sutter Pack. Co.) ¹ ..	9	5.1	75
<i>Yolo</i> (Calif. Preserv. Co.) ¹	9	5.1	76

¹ Available in the West only.

CANNED TOMATO JUICE

In buying canned tomato juice, it is best to look for those listed below which have high scores, and then to choose between them on the basis of price. In the following table, where more than one size of a given brand was bought, the sizes are listed individually.

Ref.: *CU Reports*, February 1939; *Western CU Supplement*, November 1938.

BRAND AND PACKER OR DISTRIBUTOR	CAN SIZE FL. OZ.	COST PER CAN (¢)	COST PER 4-OZ. SERVING (¢)	SCORE
	GRADE A			
<i>American Home</i> (National Tea)	13½	9	2.7	90
<i>Ann Page</i> (A&P)	12½	6	1.9	90
<i>Armour's</i> (Armour)	24	10	1.7	86
<i>Beech-Nut</i> (Beech-Nut)	16	15	3.2	86
	12½	8		
<i>C-H-B</i> (Calif. Conserv. Co.) ¹ ...	15	5	1.3	91
<i>Campbell's</i> (Campbell Soup Co.)	14	9	2.2	90
	20	10		
<i>College Inn</i> (College Inn Food Prod.)	13¾	6	1.9	91
	20	10		

¹ Available in the West only.

TOMATO JUICE 33

BRAND AND PACKER OR DISTRIBUTOR	CAN SIZE FL. OZ.	COST PER CAN (¢)	COST PER 4-OZ. SERVING (¢)	SCORE
<i>Co-op</i> (Eastern Coop. Whole- sale) ¹	24	10	1.7	91
<i>Country Club</i> (Kroger)	24	10	1.7	91 ^a
<i>Crosse & Blackwell</i> (Crosse & Blackwell)	14	10	2.9	90
<i>Exquisite</i> (Santa Cruz Fruit Pack. Co.)	23	9	1.6	91
<i>Gerber's</i> (Gerber Prod. Co.) ...	20	9	1.8	91
<i>Glorietta</i> (Santa Clara Pack. Co.) ¹	15	7	1.9	88
<i>Grand Union</i> (Grand Union) ..	20	10	2.0	92
<i>Heinz</i> (H. J. Heinz)	12	7	2.5	90 ^a
<i>Hunt's</i> (Hunt Bros.) ¹	15	8	2.1	86
<i>IGA</i> (Indep. Groc. Alliance) ...	20	15	2.9	92
	15	10		
<i>Iona</i> (A&P)	24	9	1.5	90
<i>Iris</i> (Haas, Baruch)	15	8	2.1	92
<i>Krasdale</i> (A. Krasne)	12	6	1.9	89
<i>Kuner's</i> (Kuner Pickle Co.) ...	13½	8	2.4	91
<i>Libby's</i> (Libby)	14	8	2.2	85 ^b
	15	6		
<i>Macy's Lily White</i> (Macy)	24	11	1.8	90
<i>Monarch</i> (Reid, Murdoch)	13½	10	2.6	90 ^b
	20	10		
<i>Oh-Boy</i> (Karasik Bros.)	28	10	1.4	86
<i>P&G</i> (Paxton & Gallagher)	18	10	2.2	88
<i>Peter-Pan</i> (J. B. Inderrieden) ..	20	10	2.0	86
<i>Premier</i> (F. H. Leggett)	24	13	2.3	88
	16	10		
<i>R-C</i> (Richmond-Chase) ¹	15	6	1.6	88
<i>Red & White</i> (Red & White) ..	18	10	2.1	91
<i>Richelieu</i> (Sprague, Warner) ..	20	10	2.4	88 ^b
	26	17		

¹ Available in the West only.

² This brand is not the same as the Co-op brand distributed by the Cooperative Wholesale, Inc., Chicago. Samples of the latter were found, at the time they were tested, to be Substandard because of high mold count. We have been informed that this particular lot is no longer on the market, but has been replaced by a lot that meets Grade A quality standards.

^a Quality variable.

(Cont'd next page)

34 TOMATO JUICE

BRAND AND PACKER OR DISTRIBUTOR	CAN SIZE FL. OZ.	COST PER CAN (\$)	COST PER 4-OZ. SERVING (\$)	SCORE
Ritter (P. J. Ritter).....	10	5	2.0	90
Royal Scarlet (R. C. Williams)	12½	6	1.9	94
Rustic (Michigan Fruit Can- ners)	24	9	1.5	88
S&W (Sussman, Wormser)....	18	8	2.1	93
	12	8		
Scott Co. (Morgan Pack. Co.)..	21	9	1.7	85
Snider (Snider Pack. Corp.)...	18	10	2.0	87
	22	10		
Swift's (Swift & Co.).....	18	7	1.6	88
Val Vita (Val Vita Food Prod.)	13½	5	1.5	91
Welch's (Welch Grape Juice)	16	15	3.7	89
White Rose (Seeman Bros.)...	20	10	2.0	95

GRADE C

Del Monte (Calif. Pack. Corp.)	12	7	2.3	84
Kemp's Sun-Ray (Sun-Ray Co.)	12	8	2.7	82
Knight's (Knight Pack. Co.) ¹ ..	15	9	2.4	78
Lippincott (Lippincott Co.)....	10	5	2.0	82
Madonna (Riverbank Can.) ¹ ...	15	5	1.3	83
Pacific Gold (Richmond- Chase) ¹	9½	7	2.9	77
Pomme d'Amour (Sunny Slope Farm) ¹	12	9	3.0	77
Stokely's (Stokely Bros.).....	23	9	1.6	82 ^a
	18	7		
Sun-Blest (Jacobson, Shealy) ² ..	15	10	2.7	78
Trupak (Haas Bros.) ¹	15	6	1.6	81
Xtra-Nice (Smith, Lynden) ¹ ...	15	5	1.3	83

SUBSTANDARD

Aladdin (United Food Prod.)¹ Taste poor.

One or more cans of the following brands were rated Substandard because they contained mold in excess of the F&DA maximum of 52%:

¹ Available in the West only.

² Quality variable.

SUBSTANDARD

Sunbeam (Austin, Nichols).*Van Camp's* (Van Camp's).²*Westgift* (Calif. Tomato Juice, Inc.).^{1,2}¹ Available in the West only.² Quality variable.

CANNED SALMON

Five generally recognized varieties of salmon are sold: Chinook (King or Spring); Red (Blueback or Sockeye); Coho (Medium Red or Silver); Pink; Chum (Keta). These varieties are listed in the approximate order of quality, Chinook being best, but there is much overlapping because each type has several gradations. A Selected Pink salmon, for example, may be better than a Medium Red. Only an expert can identify all of the species.

A good can of salmon should be free of all waste material, and there should not be more than two or three pieces of fish in the container. Proper cooking is indicated by a soft and easily crumbled bone. The flavor should be good and the taste slightly salty. It is also important that there be enough oil to provide a fine, moist product.

BREAKFAST CEREALS

With the exception of the whole-grain variety, breakfast cereal should be eaten mainly as a cheap source of energy.

The whole-grain cereals are generally preferable to refined products, such as farina and polished rice. The former are a good source of vitamin B (B_1), and of many minerals. The highly refined cereals commonly used are markedly deficient in minerals and practically devoid of vitamins.

Bran, widely advertised for its laxative qualities, is unnecessary for normal individuals and definitely dangerous to many. Even the cereals with added bran should be avoided by most persons.

There is some evidence to suggest that too much cereal in a child's diet may be associated with excessive tooth decay.

The accompanying table gives comparative costs of various brands based on a survey made in December 1937.

(Cont'd next page)

SCORE

90

94

88

93

85

87

88

91

89

95

84

82

78

82

83

77

77

82

78

81

83

Sub-
&DA

Prices listed are those for the smallest packages available. In using the table for shopping, check prices and net weights against those in your local stores.

Parents should be on guard against the extensive propaganda for various cereals in children's radio programs (see "40,000,000 Guinea Pig Children," by Rachel Lynn Palmer).

Ref.: *CU Reports*, October 1937.

TYPE AND BRAND	COST PER PKG.	PKG. (Oz.)	CALORIES PER ϵ
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WHOLE-WHEAT CEREALS

Steamed, rolled whole wheat ¹27	80	295 ²
Milkwheato ¹25	32	135 ²
Kellogg's Krumbles .....	.08	9	120
Pettijohn's .....	.19	22	115 ²
Ralston .....	.23	24	110 ²
Shredded Wheat .....	.13	12	105
Kellogg's Shredded Wheat.....	.13	12	105
Shredded Ralston .....	.14	12	100
Wheatena .....	.23	22	100 ²
Force .....	.12	9	85
Huskies .....	.13	10	85
Wheaties .....	.12	8	75
Kellogg's Wheat Krispies with			
Rice .....	.12	8½	75
Grape-Nuts .....	.19	12	70
Grape-Nuts Flakes .....	.11	7	70
Quaker Puffed Wheat.....	.08	3½	50

REFINED WHEAT CEREALS (Farinas)

Mello-Wheat (A&P) .....	.19	28	155 ²
Pillsbury's Farina .....	.10	14	140 ²
Cream of Wheat.....	.14	14	105 ²
Hecker's Cream Farina.....	.14	14	105 ²

¹ Eastern States Farmers' Exchange, Springfield, Mass. (sold by agencies in New England States, Del., Md., and Pa. only).

² Does not include cost of cooking.

³ Contains added dried skim milk, which should make it superior in nutritive value to ordinary cereals. Distributed by Cooperative Grange League Federation, Ithaca, N. Y. (agencies throughout N. Y. State); also by Eastern Cooperative Wholesale and Cooperative Distributors, NYC.

TYPE AND BRAND	COST PER PKG.	PKG. (Oz.)	CALORIES PER ϕ
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OAT CEREALS

Steamed Rolled Oats ¹25	80	370 ^a
Sunnyfield Rolled Oats (A&P)...	.07	20	330 ^a
Co-op Rolled Oats ².....	.08	20	290 ^a
Quick Quaker Oats.....	.08	20	290 ^a
H-O Oats.....	.12	20	190 ^a
Three Minute Oat Flakes.....	.09	14	180 ^a
Milkoato ⁴.....	.22	32	170 ^a

CORN CEREALS

Corn Meal ¹.....	.21	80	380 ^a
Quaker Corn Meal.....	.09	24	270 ^a
Co-op Corn Flakes ².....	.10	13	145
Milkorno ⁴.....	.23	32	140 ^a
Sunnyfield Corn Flakes (A&P)...	.07	8	125
Kellogg's Corn Flakes.....	.08	8	110
Post Toasties.....	.08	8	110

RICE AND RICE CEREALS

Reeves Whole Head Rice.....	.10	16	160 ^a
Comet White Rice.....	.08	12	150 ^a
Comet Brown Rice.....	.10	12	120 ^a
Heinz Rice Flakes.....	.12	6½	55
Kellogg's Rice Krispies.....	.12	6	55
Quaker Puffed Rice.....	.11	4	40

PART-BRAN CEREALS

Co-op 40% Bran Flakes ².....	.10	10	105
Kellogg's Pep.....	.11	10	100
Post's 40% Bran Flakes.....	.12	10	90

¹ Eastern States Farmers' Exchange, Springfield, Mass. (sold by agencies in New England States, Del., Md., and Pa. only).

² Does not include cost of cooking.

³ Central Cooperative Wholesale, Superior, Wis.; also Eastern Cooperative Wholesale, NYC.

⁴ Contains added dried skim milk, which should make it superior in nutritive value to ordinary cereals. Distributed by Cooperative Grange League Federation, Ithaca, N. Y. (agencies throughout N. Y. State); also by Eastern Cooperative Wholesale and Cooperative Distributors, NYC.

(Cont'd next page)

38 CEREALS, COCOA

TYPE AND BRAND	COST PER PKG.		COST PER LB. IN ¢
	PKG.	(OZ.)	

ALL-BRAN CEREALS

<i>Pillsbury's Wheat Bran</i> .....	.18	20	14.4
<i>Kellogg's All Bran</i> .....	.22	18	19.8

COCOA

Practically every one of the cocoa samples tested met the Federal specifications for its type. Cocoas do differ considerably, however, with regard to lead content. Brands containing more lead than the Food & Drug Administration's former maximum lead tolerance of 0.018 grain per lb. ($2\frac{1}{2}$ parts per million) are rated high in lead. This tolerance is now in the process of revision.

An important factor to be considered in feeding cocoa to children is its content of theobromine. This is an alkaloid closely related to caffeine, the stimulant drug in coffee. Besides the stimulating effect, theobromine is also a strong diuretic (i.e., it increases the flow of urine), and because of these qualities should not be given to children just before bedtime.

Ref.: CU Reports, November 1938.

In the following tables, the cocoas are divided into three groups: Dutch Process, General Purpose, Breakfast.

Products are rated in order of cost per ounce within each group but note that it was not possible to purchase all brands in the same size. In purchasing other sizes than those rated, the order of cost might change.

DUTCH PROCESS COCOAS

These cocoas are treated with alkali, which reacts chemically with the cocoa increasing the smoothness of the beverage and changing the color and flavor. They are usually a great deal more expensive than any other variety, and some authorities believe that the added alkali may decrease digestibility.

BRAND AND MANUFACTURER OR DISTRIBUTOR	LABEL	COST		LEAD
	WEIGHT (OZ.)	COST (¢)	PER OZ. (¢)	
<i>Richelieu</i> (Sprague, Warner)	8	25	3.1	Variable

COST PER
LB. IN ¢

BRAND AND MANUFACTURER OR DISTRIBUTOR	LABEL WEIGHT (OZ.)	COST (¢)	COST PER OZ. (¢)	LEAD
Van Houten's (C. J. Van Houten & Zoon)	16	64	4.0	Variable
Bensdorp (Bensdorp) ..	8	33	4.1	Variable
Droste's (Droste)	8	39	4.9	Variable

BREAKFAST COCOAS

Cocoas labeled Breakfast Cocoa must have a cocoa fat content of at least 22%, to meet Federal specifications. They are at least as nutritious as Dutch Process cocoas, but far less expensive.

BRAND AND MANUFACTURER OR DISTRIBUTOR	LABEL WEIGHT (OZ.)	COST (¢)	COST PER OZ. (¢)	LEAD
Quaker Maid (Quaker Maid)	8	6	0.8	Low
National (National Tea Co.)	8	9	1.1	Low
Ann Page (A&P)	8	9	1.1	Variable
Hershey's (Hershey Choco- late Corp.)	8	10	1.2	Low
Baker's (Walter Baker)	8	10	1.2	Variable
Blue Jewel (Jewel Food Stores)	16	19	1.2	Variable
Maillard (Henry Maillard) ..	8	19	2.4	Low
Huyler's (Huyler's)	8	25	3.1	Variable
Phillips Digestible (Chas. H. Phillips)	8	25	3.1	High

GENERAL PURPOSE COCOAS

There is no limitation on the permissible fat content of cocoas of this type. The general range is from 10% to 18%.

BRAND AND MANUFACTURER OR DISTRIBUTOR	FAT (%)	LABEL WEIGHT (OZ.)	COST (¢)	COST PER OZ. (¢)	LEAD
Macy's Jessamine (R. H. Macy)	14	32	16	0.5	Low
Truworth (K. B. Chocolate Co.)	15	32	15	0.5	Variable

(Cont'd next page)

40 COCOA, COFFEE

BRAND AND MANUFACTURER OR DISTRIBUTOR	LABEL		COST		LEAD
	FAT (%)	WEIGHT (OZ.)	COST (¢)	PER OZ. (¢)	
<i>Our Mother's</i> (E. & A. Opler)	12	16	10	0.6	Variable
<i>Nancy Lee</i> (Canada's Pride Products)	18	16	12	0.8	Variable
<i>Iona</i> (A&P)	14	8	6	0.8	Variable
<i>White Rose</i> (Seeman Bros.)	11	16	19	1.2	Low
<i>IGA</i> (Indep. Groc. Alliance)	15	8	10	1.3	Low
<i>Royal Scarlet</i> (R. C. Williams)	18	8	10	1.3	High
<i>Runkels</i> (Runkel Bros.)	13	8	10	1.3	High

COFFEE

The quality of a cup of coffee depends upon freshness, roast, blend, grind and method of preparation. In communities where there is a good source of fresh coffee, it should be bought loose, in the bean, and ground at home just before each preparation (or, less desirable, ground at the store on purchase). Where this is not possible, or where the loose coffee blend available does not suit the taste, it is best to purchase coffee in vacuum tins—remembering, however, that this method of packing adds about 4¢ to the cost of a pound.

Coffee flavor deteriorates very rapidly after roasting or after opening the vacuum tin. Tests indicate that coffee may retain its freshness longer when kept in a tight container in a refrigerator. For best flavor, coffee should be ground about as fine as granulated sugar. For methods of preparation, see page 174.

Varieties of coffee range from the comparatively light Santos and Milds to the heavier-bodied Bogota. Selection depends entirely upon individual preference. Since freshness is probably the most important single factor, ratings are significant only for samples which are equally fresh. It should be noted that the quality of coffee changes, and the ratings may no longer apply.

Ref.: CU Reports, March 1938.

The following brands were found to be of good quality in CU's tests:

Ben Hur, Edwards Dependable, Fit for a King, Hills Bros., Martinson's, Red A, Red Circle, Red Star, Royal Jewel, Royal Scarlet, S&W, Santos Royale.

The following are special types of coffee:

Cafe Rico Puerto Rican (Paton Corp.). 13-oz. vacuum tin, 53¢. Advertised for demi-tasse use. Very dark (French) roast; it is probable that the flavor would not appeal to most people accustomed to the lighter American roasts.

G. Washington Instant Coffee (G. Washington Coffee Refining Co.). 39¢ for 1½ oz. Powdered coffee extract, for use without a coffee-making device. Undoubtedly convenient, but flat in taste and lacking in aroma.

Kaffee Hag; Sanka (General Foods Corp.). 39¢ a lb. Most of the caffeine is removed from these coffees by chemical treatment. Slightly off flavor, and rather weak unless much more than average amounts are used.

DOG FOODS

Recommended standards for dog foods designed to meet minimum nutrition requirements are: protein, not less than 10% (7½% of animal origin); fat, not less than 2%; moisture, not more than 75%; crude fiber, not more than 1%.

This minimum analysis is based on a content of at least 50% fresh sound meat or fish.

The dog foods listed below showed wide differences in the ingredients used. The main types were: meat, vegetables, cereals, ground bone, salt and cod-liver oil. The meat often comes from animals and from parts of animals which are not popular for human consumption (e.g., horse meat, lung tissue), but which are not necessarily less desirable for dogs.

Leading authorities recommend that canned dog food and dog biscuit should be used only as a supplement or as an emergency food for dogs. A much more satisfactory diet can be obtained at a lower price by feeding the dog inexpensive cuts of meats, with the addition of bones, leftover soups and non-starchy vegetables. The cheaper grades of canned fish, such as salmon and mackerel, are only slightly more expensive than canned dog food and are better sources of protein.

(Cont'd next page)

42 DOG FOOD, FLOUR, FROZEN FOODS

The following products are rated on the basis of information released by the North Dakota Regulatory Dep't.

Ref.: *CU Reports*, June 1938.

ACCEPTABLE

- Tally-Ho Dog Food** (Cudahy Packing Co., Chicago). 1-lb. can, 10¢.
Maro-Meat (Chappel Bros., Rockford, Ill.). 1-lb. can, 15¢.
Red Heart Dog Food, Diet A (John Morrell & Co., Ottumwa, Iowa). 1-lb. can, 8¢.
Red Heart Dog Food, Diet B. 1-lb. can, 8¢.
Red Heart Dog Food, Diet C. 1-lb. can, 8¢.
Dog-Gon Good Dog Food (Rath Pack. Co., Waterloo, Iowa).
Rival Dog Food (Rival Pack. Co., Chicago). 1-lb. can, 10¢.
Sandy's Dog Food (Sandy's Pet Foods, Chicago).
Pard (Swift & Co., Chicago). 1-lb. can, 10¢.

NOT ACCEPTABLE

- Ace Dog Food** (Banner Packing Co.).
Calo Dog Food (Calo Food Products).
Ken-L-Ration Red and Buff Label (Chappel Bros.).
Ken-L-Ration Black and Buff Label.
Strongheart Rations (Doyle Packing Co.).
Square Deal (Doyle Packing Co.).
Doggie Dinner (Doggie Dinner, Inc.; div., Loudon Pack. Co.).
Krect Dog Food (Nyal Co.).

FLOUR

New tests of flour (general purpose, cake, biscuit, cookie) are being completed as the *Buying Guide* goes to press. Results will appear in the May 1939 issue of the *Reports*.

FROZEN FOODS

Quick-freezing is not simply cold storage; it is preservation by a special process of rapid freezing followed by storage at sub-freezing temperatures. The best frozen foods compare favorably with fresh in flavor, appearance and nutritive value. They are usually superior to canned goods in vitamin-retention and flavor and generally more convenient to prepare than

fresh vegetables. However, they generally cost more than the equivalent canned food or fresh food in season.

Frozen foods should be used *immediately after thawing*. Once their temperature is raised above the freezing point, they will spoil more rapidly than fresh foods. Even an ordinary refrigerator will not preserve them for any length of time, unless they are put in the ice cube tray.

DRIED FRUITS

Dried apricots, peaches, apples, pears (and sometimes other fruits) are commonly treated with sulfur dioxide to preserve them, to keep them from darkening and to prevent their moisture content from increasing to a point where it will cause deterioration.

Examine the labels on dried fruit packages carefully. Added sulfur dioxide should be indicated. The words "moisture added" on a label usually mean simply that you will get less fruit for your money. If you buy dried fruits in bulk, look for such statements on the box or carton in which the grocer keeps them.

Inspect all dried fruits carefully. Dirty, moldy and insect-infested dried fruits are all too common.

Until the average sulfur content of dried fruit has been considerably lowered or entirely eliminated, or the amounts now present have been proven safe, CU advises consumers to limit the amount of this food in their diet.

Dried fruits may be decidedly dangerous if swallowed whole or incompletely chewed, because when they become moist they swell up and may obstruct the intestine.

PREPARED INFANT FOODS

It is more convenient to buy infant foods ready prepared in cans, but their cost may run up to four times as much as that of fresh vegetables, bought in season and prepared at home. The job of home preparation can be made easier if the baby's vegetables are cooked at the same time as the meal for the rest of the family.

Some child specialists feel that canned strained vegetables are excessively refined; that the sooner the baby passes from strained to chopped foods, the better.

(Cont'd next page)

Generally, there is some loss of vitamin C when foods are canned. The loss is of little importance, however, if infants receive vitamin C in their orange and tomato juice.

Ref.: CU Reports and Western CU Supplement, November 1938.

A COST COMPARISON

The table below gives a cost comparison of prepared strained infant foods, fresh foods cooked and strained at home, and canned foods strained at home.

The price of the strained infant foods is the average price found—three 4½-oz. cans for 25¢. The cost of fresh foods is based on New York "in season" prices during the past year. Allowance was made for waste in cleaning and straining, but none for time spent or for cost of gas.

The prices given for unstrained canned goods are based on those of canned goods rated Grade A by the U. S. Dep't of Agriculture. Allowance was made for the liquids in which the products are packed.

COST IN ¢ PER 4½-OZ. PORTION (APPROX.)

	Strained Canned	Fresh (In Season)	Unstrained Canned
Beets	8	2	5.5
Carrots	8	2	¹
Peas	8	6.5	7.9
Spinach	8	2	5.3
String Beans	8	2	8.7
Tomatoes	8	2	3.0 ²
Applesauce	8	1.5	2.0
Apricots	8	3	6.4
Prunes	8	3	4.2

¹ Not available canned.

² Tomato juice.

The listings that follow are based on tests for flavor only. They were made by a food grader of the U. S. Dep't of Agriculture, and as far as possible, the factor of added seasoning has been eliminated. Although the ratings do not in themselves constitute recommendations, it is advised that those listed as "Poor" be avoided, because of the possibility of contamination, poor handling or inferior ingredients.

GOOD

Beets—*Beech-Nut, Clapp's, Heinz, Macy's.*
 Carrots—*Heinz, Macy's, Sanitarium¹.*
 Green Beans—*Heinz, Sanitarium¹.*
 Peas—*Gerber's, Heinz, Larsen's, Macy's, Sanitarium¹,
 Stokely's, Trupak¹.*
 Spinach—*Beech-Nut, Clapp's, Gerber's, Heinz, Sanitarium¹.*
 Tomatoes—*Heinz, Sanitarium¹.*
 Apples—*Beech-Nut, Clapp's, Macy's.*
 Apricots—*Beech-Nut, Clapp's, Macy's.*
 Prunes—*Beech-Nut, Clapp's, Gerber's, Larsen's, Macy's,
 Stokely's.*

FAIR

Carrots—*Beech-Nut, Gerber's, Larsen's.*
 Green Beans—*Clapp's, Gerber's, Larsen's.*
 Peas—*Beech-Nut.*
 Spinach—*Macy's.*
 Tomatoes—*Clapp's, Gerber's, Macy's, Stokely's.*

POOR

Beets—*Gerber's.*
 Carrots—*Clapp's, Trupak¹.*
 Green Beans—*Beech-Nut, Macy's, Trupak¹.*
 Spinach—*Larsen's, Trupak¹.*
 Tomatoes—*Larsen's, Trupak¹.*
 Apples—*Larsen's.*

¹ Available in the West only.

MAPLE SYRUP

Pure maple syrup is more expensive than blends of maple and cane. The flavor of the blends is, however, satisfying to many people. Read labels carefully—many people do not notice that they are buying a blend. A blend can be made at home easily and will cost less than any of the mixtures on the market (directions are given below).

An entirely synthetic syrup can be made from *Mapleine* flavor at a cost less than one-fifth that of pure maple syrup. This syrup has been found satisfactory by many who have tasted it, and indistinguishable from real maple syrup by some.

Ratings are based on 1936 tests; prices are for 1939.

Ref.: *CU Reports*, Jan.-Feb. 1937.

(Cont'd next page)

46 MAPLE SYRUP, PRESERVES

100% MAPLE SYRUPS

BEST BUY

White Rose (Seeman Bros., NYC). 12 fl. oz., 25¢; cost per fl. oz., 2.1¢.

ALSO ACCEPTABLE

Co-op (Vermont Maple Cooperative, Essex Junction, Vt.). 1 pt., 39¢; cost per fl. oz., 2.4¢.

Ann Page (A&P). 1 pt., 39¢; cost per fl. oz., 2.4¢.

Macy's Lily White (R. H. Macy, NYC). 1 pt., 37¢; cost per fl. oz., 2.3¢.

PART CANE AND IMITATION MAPLE

ACCEPTABLE

Mapleline (Crescent Mfg. Co., Seattle). Syrup is made by adding 4 cups of sugar and 1 teaspoonful of *Mapleline* (imitation maple flavor) to 2 cups of boiling water. Cost per qt., 12¢; cost per fl. oz., 0.4¢.

Compound syrup made from $\frac{1}{2}$ pint maple syrup, $1\frac{1}{2}$ cups water, 3 cups cane sugar. Boil the sugar and water together, then add the maple syrup. Cost per fl. oz., about 0.8¢.

Vermont Maid (Penick & Ford, NYC). 25% maple, 75% cane. 12 fl. oz., 27¢; cost per fl. oz., 1.8¢.

Log Cabin (General Foods Corp., NYC). 25% maple, 75% cane. 12 fl. oz., 23¢; cost per fl. oz., 1.9¢.

MARMALADES, JAMS AND PRESERVES

Of the samples included in CU's tests, few had a fresh fruit taste; most of them were too sweet and too sticky. Many manufacturers use canned or frozen fruit and many violate the liberal Federal standard for jams and preserves, which requires that at least 45 pounds of fruit be used for every 55 pounds of sugar.

Ref.: CU Reports and Western CU Supplement, Dec. 1938.

ORANGE MARMALADE

There are two distinct types on the market. Sweet marmalade is made from Florida or California oranges; bitter marmalade generally from oranges grown in Spain. The terms "bitter" and "sweet" are designations of type, rather than descriptive terms. Both are actually very sweet.

Flavor was considered the most important factor in rating the products below. A good marmalade should taste both of the fresh fruit juice and the rind.

SWEET ORANGE MARMALADES

BRAND AND PACKER OR DISTRIBUTOR	COST PER JAR (¢)	SIZE OF JAR (OZ.)	COST PER LB. (¢)
FAIR QUALITY			
<i>King Kelly</i> (King Kelly Marmalade) ¹	14	16	14
<i>Sunbeam</i> (Austin Nichols).....	29	32	15
<i>Dodge</i> (Haas Bros.) ¹	10	8	20
<i>Anna Myer's</i> (Mrs. Anna Myer's).....	19	16	19
<i>Puritan</i> (Stewart Prod. Corp.) ¹	13	6	35
<i>Tea Garden</i> (Tea Garden Prod.).....	25	16	25
<i>S&W</i> (Sussman, Wormser).....	19	8	38

POOR QUALITY

<i>Wellman</i> (Wellman-Peck & Co.) ¹	10	6½	25
<i>M. Polaner's</i> (Woolworth's).....	20	16	20
<i>Ann Page</i> (A&P).....	17	16	17
<i>Blue Bell</i> (Senn Prod. Corp.).....	10	12	13
<i>Krasdale</i> (A. Krasne).....	19	16	19
<i>Schrafft's</i> (Frank G. Shattuck).....	35	11	51
<i>Baron's</i> (H. Baron).....	69	64	17

BITTER ORANGE MARMALADES

GOOD QUALITY

<i>Macy's Lily White</i> (R. H. Macy).....	24	16	24
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¹ Available in West only.

48 MARMALADES, PRESERVES

BRAND AND PACKER OR DISTRIBUTOR	COST PER JAR (¢)	SIZE OF JAR (oz.)	COST PER LB. (¢)
FAIR QUALITY			
<i>Chivers'</i> (Chivers & Sons).....	23	16	23
<i>Hartley's</i> (Wm. P. Hartley).....	27	16	27
<i>Crosse & Blackwell</i> (Crosse & Blackwell)	29	16	29
POOR QUALITY			
<i>York House</i> (R. H. Macy).....	24	16	24

STRAWBERRY PRESERVES

Preserves, as contrasted with jams, are cooked mixtures of fruit and sugar, in which the fruit is not broken up, but remains in recognizable shape. Although strawberries are not difficult to put up as preserves, six of the 12 brands tested by CU were labeled "preserve" but contained fruit so crushed that the consistency of the mixture was jam-like.

STRAWBERRY PRESERVES			
BRAND AND PACKER OR DISTRIBUTOR	COST PER JAR (¢)	SIZE OF JAR (oz.)	COST PER LB. (¢)
GOOD QUALITY			
<i>Schrafft's</i> (Frank G. Shattuck).....	50	12	67
<i>Ann Page's</i> (A&P).....	20	16	20
<i>White Rose</i> (Seeman Bros.).....	25	16	25
FAIR QUALITY			
<i>Wellman's</i> (Wellman-Peck) ¹	10	6½	25
<i>S&W's</i> (Sussman, Wormser).....	29	16	29
<i>Trupak's</i> (Haas Bros.) ¹	25	16	25
<i>Premier's</i> (F. H. Leggett)	21	12	28
<i>California Delicacies</i> ² (Calif. Delicacies) ¹	35	16	35
<i>Crosse & Blackwell</i>	29	16	29

¹ Available in West only.

² Labeled preserves; actually jams.

PRESERVES, JAMS 49

COST PER LB. (¢)	BRAND AND PACKER OR DISTRIBUTOR	COST SIZE COST PER JAR OF JAR PER LB. (¢) (OZ.) (¢)		
	POOR QUALITY			
23	<i>Flower Garden</i> ² (Sambo Dairy Prod.)	20	16	20
27	<i>Baron's</i> (H. Baron)	69	64	17
	<i>Tea Garden</i> ² (Tea Garden Products) ..	29	16	29
29	<i>Valamont</i> ² (National Fruit Can. Co.) ¹ ..	10	8	20
	<i>Tea Garden</i> ² (Tea Garden Prod. Co.) ..	35	16	35
	<i>Puritan</i> ² (Puritan Preserve Co.) ¹	13	6	35
24	<i>M. Polaner's</i> (Woolworth's)	20	16	20
	<i>Acme</i> ² (Senn Prod. Corp.)	9	10	30
	<i>Dodge</i> ² (Haas Bros.) ¹	10	8	20
	<i>Krasdale</i> (A. Krasne)	21	16	21

STRAWBERRY JAMS

See also jams listed under Strawberry Preserves.

FAIR QUALITY

<i>Anna Myer's</i> (Mrs. Anna Myer's)	35	32	18
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POOR QUALITY

<i>Chivers'</i> (Chivers & Sons)	39	16	39
<i>Pride</i> Imitation (Puritan Preserve Co.) ¹	10	7	23
<i>York House</i> (R. H. Macy)	37	16	37
<i>Macy's Lily White</i> (R. H. Macy)	24	16	24

RASPBERRY JAMS OR PRESERVES

Raspberries are much more delicate than strawberries, and are generally crushed so that they appear as jams. Of the 15 brands tested, 10 were mislabeled as preserves.

In general, raspberry jams, like strawberry preserves, are far too high in sugar and too low in fruit content.

RASPBERRY JAMS OR PRESERVES

GOOD QUALITY

<i>Acme</i> ² (Senn Products)	19	10	30
<i>Trupak</i> ² (Haas Bros.) ¹	25	16	25

¹ Available in the West only.

² Labeled preserves; actually jams.

50 JAMS, CANNED MILK

BRAND AND PACKER OR DISTRIBUTOR	COST PER JAR (¢)	SIZE OF JAR (Oz.)	COST PER LB. (¢)
<i>Crosse & Blackwell</i> ¹	29	16	29
<i>Tea Garden</i> ² (Tea Garden Prod. Co.)	23	16	23
<i>White Rose</i> ² (Seeman Bros.)	25	16	25
<i>Valamont</i> ² (National Fruit Can. Co.) ¹	10	8	20
<i>Ann Page</i> (A&P)	19	16	19

FAIR QUALITY

<i>S&W</i> ² (Sussman, Wormser)	19	8	38
<i>California Delicacies</i> (Calif. Delicacies) ¹	35	16	35
<i>Baron's</i> ² (H. Baron)	69	64	17
<i>M. Polaner's</i> ² (Woolworth's)	20	16	20
<i>Tea Garden</i> ² (Tea Garden Prod. Co.)..	29	16	29

POOR QUALITY

<i>Krasdale</i> (A. Krasne) ¹	21	16	21
<i>Macy's Lily White</i> (R. H. Macy)....	24	16	24
<i>Anna Myer's</i> (Mrs. Anna Myer's).....	35	32	18
<i>York House</i> (R. H. Macy)	33	16	33
<i>Flower Garden</i> ² (Sambo Dairy Prod.)	20	16	20
<i>Chivers</i> ² (Chivers & Sons)	34	16	34
<i>Dodge</i> ² (Haas Bros.) ¹	10	8	20
<i>Wellman</i> ² (Wellman-Peck) ¹	10	6½	25

¹ Available in the West only.

² Products labeled preserves; actually jam.

CANNED MILK

EVAPORATED MILK

About half the water of fresh milk is removed in the process of making evaporated milk. It should be substituted for the fresh if wholesome, *pasteurized* fresh milk cannot be obtained (particularly on trips, picnics, &c.). Evaporated milk is usually cheaper than fresh milk (to compare prices consider 16 ounces of evaporated equal to a quart of fresh). However, many people don't like the taste of the evaporated.

Diluted with an equal amount of water, evaporated milk is comparable in nutritional value to fresh except for its lower vitamin C content. Even fresh milk, however, is an undependable source of this vitamin. If the food budget is limited, therefore, evaporated milk can advantageously be substituted for fresh.

Much evaporated milk is now irradiated to increase its vitamin D value, but such milk is not a certain preventive or cure for rickets and it is possible that the irradiation process may destroy certain other vitamins.

CONDENSED MILK

Condensed milk is somewhat more concentrated than evaporated milk and contains large amounts of added sugar. Except where the sugar is needed for sweetening purposes, evaporated milk is preferable. Unsweetened evaporated milk is preferable for infant feeding.

NOT ACCEPTABLE

Carolene (Carolene Products Co.). This product is an imitation milk degraded in quality by the removal of its natural butter fat and substitution of an inferior fat, coconut oil.

Milnut (Carolene Products Co.). Believed to be identical with *Carolene*.

FRESH MILK

Most of the milk supplied to consumers in the larger cities is pasteurized, and this fact has done much to cut down the occurrence of the milk-borne diseases. Unpasteurized milk, even if it is "certified," cannot be relied on as safe to drink.

There is no universal system of grading throughout the United States, but many of the large cities sell milk as Grade A and Grade B. In practically all communities and States these are differentiated in the statutory requirements by the number of bacteria per cc. permitted in the milk.

Examinations of large numbers of milk samples in New York City showed no significant difference in butterfat and no difference in bacteria count between these two grades. On the basis of these tests, the difference in price between Grade A and Grade B in New York City appears unjustified. And

52 MILK, SALT

there is reason to believe that the same situation exists in other parts of the country.

Tests show that paper containers for milk can be made as sanitary as glass bottles.

SALT

The range of normal tolerance to salt appears to be high, and, except in unusual cases, the amount taken into the body is adequately regulated by taste.

Iodized salt has been introduced on the theory that the iodine in it should make up for the deficiency of this element in the diets of many people living in the "goiter belts." And reports show that the general use of iodized salt in such areas has greatly reduced the occurrence of goiter.

Anyone with a goiter or symptoms of an overactive thyroid gland—weakness, loss of weight, nervousness—should seek medical advice before taking iodine in any form.

The ratings here were compiled on the basis of examinations by the North Dakota Regulatory Dep't.

Ref.: "Iodized Table Salt"; North Dakota Regulatory Dep't, Bismarck, N. D., February 1938.

ACCEPTABLE

Iodized salt for use in areas where there is inadequate iodine in the diet:

Diamond Crystal (Diamond Crystal Salt Co.).

18 K (Winston & Newell Co.).

Right & Ready (Ruggles & Rademaker).

Red & White (Red & White Corp.).

Morton's (Morton Salt Co.).

NOT ACCEPTABLE

The following brands contained less than the stated amounts (0.02% to 0.023%) of potassium iodide:

Worcester (Worcester Salt Co.).

E-Z Flow (E-Z Flow Salt Co.).

Manistee (Manistee Salt Works).

Our Family (Nash Finch Co.).

The following was variable, with iodide content from 0.012% to 0.093%:

IGA (Independent Grocers Alliance).

SOFT DRINKS

There are in the neighborhood of 13,000,000,000 half-pint bottles of carbonated beverages sold annually in the United States. Most of these drinks are artificially colored and flavored, but when synthetic ingredients are present, Federal regulations require that they must be declared on the label. The effect of such ingredients on health is still speculative, but it is generally agreed that the American diet is too high in sugar. And most carbonated beverages have a rather high sugar content. Because their proportion of sugar is so high, these carbonated beverages also tend to spoil the appetite if taken before meals. Fruit-ades (orangeade) made with fresh fruit and a minimum of sugar offer an excellent substitute as cooling drinks, and are more healthful.

Some soft drinks are made in sanitary plants under controlled conditions, but a great many factories take few or no precautions to insure freedom from bacterial contamination.

Outstanding in popularity among the soft drinks is *Coca-Cola*. In addition to a variety of flavoring ingredients, *Coca-Cola* contains caffeine. Mothers would do well to remember this fact before letting their children drink *Coca-Cola*.

Other soft drinks made on a formula similar to that of *Coca-Cola* include *Pepsi-Cola*, *Multi-Cola*, *Nehi*, *Royal Crown-Cola*, *Star-Cola*, *Buxa-Cola*, *KO Nut*, *Lime-Cola*, *Red Rock-Cola* and *Pola-Cola*.

Ref.: *CU Reports*, August 1938.

SUGAR

There is no appreciable difference between the various brands of granulated white sugar; purchases should be based on price. Cane and beet sugar are practically identical.

TEA

Differences between the three main types of tea—black, oolong and green—result from different degrees of fermentation in the curing process. Choice between the three is largely a matter of personal preference. The term "orange pekoe" as now used is no indication of good quality; buy by brand name and type only.

In buying tea always look for the net weight on the package; deceptive packaging is not infrequent.

(Cont'd next page)

Ref.: CU Reports and Western CU Supplement, March 1939.

BLACK TEAS

GOOD QUALITY

- Tetley** Orange Pekoe and Pekoe (Joseph Tetley & Co., NYC). 4 oz., 23¢.
- Mayfair** Orange Pekoe India Ceylon (Quaker Maid Co., NYC; purchased at A&P stores). 8 oz., 39¢.
- Grisdale** Flowery Orange Pekoe (distrib., Cristede Bros., NYC). 4 oz., 25¢.
- Salada** Red Label Orange Pekoe and Pekoe (Salada Tea Co., Boston). 4 oz., 23¢.
- Salada** Brown Label Orange Pekoe and Pekoe. 4 oz., 20¢.
- Cooperative Empire Crown** (packed by English & Scottish Joint Cooperative Wholesale Society, Ltd., London, Eng.; distrib. in U. S. by Eastern Cooperative Wholesale, Brooklyn).¹ 4 oz., 23¢.
- Manning's Blue Label** (Mannings, San Fran.).² 4 oz., 18¢.
- Darma** (Consolidated Tea Co., San Francisco).² \$1.50. Darjeeling flavor. Quality good, but price exorbitant.

FAIR QUALITY

- Co-op Blue Label** Orange Pekoe (Eastern Cooperative Wholesale).¹ 8 oz., 29¢.
- McCormick's** Tea House Banquet Orange Pekoe (McCormick & Co., Baltimore). 4 oz., 19¢.
- Anderson** (Anderson Tea Store, 156 Eighth Ave., NYC). 4 oz., 20¢. Sold in bulk.
- Lipton's** Yellow Label Orange Pekoe and Pekoe (Thomas J. Lipton, Inc., Hoboken, N. J.). 4 oz., 25¢.
- Ridgway's Gold Label** 100% Genuine Orange Pekoe (Ridgways, Inc., NYC). 4 oz., 33¢.
- Sheffield's** Orange Pekoe (Sheffield stores, NYC). 4 oz., 15¢.
- Pride of Killarney** 100% Assam Orange Pekoe (distrib., American Stores Co., Philadelphia). 4 oz., 17¢.
- Challenge** Pekoe and Orange Pekoe (Eppens, Smith Co., NYC). 8 oz., 21¢.
- Nectar** India Ceylon Java (distrib., A&P stores). 8 oz., 29¢.

¹ Write Eastern Cooperative Wholesale for nearest retail co-op distributor.

² Available in the West only.

Tea-Pot Orange Pekoe (packed by The Grand Union Co., NYC). 4 oz., 15¢.

Geffen's Orange Pekoe (Geffen Tea Co., Phila.). 4 oz., 15¢.

Asco Orange Pekoe and Pekoe India Ceylon (distrib., American Stores Co.). 4 oz., 13¢.

Our Own (A&P stores). 8 oz., 23¢.

McNamara's Famous Fancy (J. McNamara, NYC). 8 oz., 25¢.

S&W Orange Pekoe and Pekoe (packed by Sussman, Wormser & Co., San Francisco). 8 oz., 25¢.

Krasdale Pekoe and Orange Pekoe (distrib., A. Krasne, Inc., NYC). 8 oz., 25¢.

Nectar Orange Pekoe (A&P stores). 4 oz., 15¢.

Perfection Orange Pekoe Ceylon (Roulstons, Brooklyn). 4 oz., 17¢.

Co-op Red Label Pure Ceylon Orange Pekoe (distrib., Eastern Cooperative Wholesale, Brooklyn).¹ 8 oz., 33¢.

Reeves' Florapek Flowery Orange Pekoe (distrib., Daniel Reeves stores, NYC). 4 oz., 18¢.

Royal Scarlet Orange Pekoe (R. C. Williams & Co., NYC). 4 oz., 19¢.

Tender Leaf Orange Pekoe and Pekoe (distrib., Chase & Sanborn; div. Standard Brands, Inc., NYC). 3½ oz., 18¢.

Wissotsky (Wissotsky Tea Co., NYC). 3½ oz., 29¢.

Cooperative Empire Crown Ceylon (blended and packed by English & Scottish Joint Cooperative Wholesale Society Ltd., London; distrib. in U. S. by Eastern Cooperative Wholesale).¹ 4 oz., 17¢.

Canterbury Orange Pekoe and Pekoe (Dwight Edwards Co., San Francisco).² 4 oz., 15¢.

S&W Black, Orange Pekoe and Pekoe (Sussman, Wormser & Co.). 4 oz., 17¢.

Ben-Hur Orange Pekoe and Pekoe (Coffee Products of America, Inc., Los Angeles).² 4 oz., 23¢.

POOR QUALITY

White Rose Selected Pekoe and Orange Pekoe Ceylon (distrib., Seeman Bros., NYC). 4 oz., 20¢.

Golden Bear Orange Pekoe and Pekoe (Golden Bear Coffee Co., Los Angeles).² 8 oz., 29¢.

¹ Write Eastern Cooperative Wholesale for nearest retail co-op distributor.

² Available in the West only.

56 TEA

Shasta Orange Pekoe and Pekoe (J. A. Folger & Co., San Francisco).² 4 oz., 15¢.

MIXED TEAS

GOOD QUALITY

Rand's Own Mixed (Rand Tea Store, 353 Eighth Ave., NYC). 4 oz., 10¢.

Asco Mixed (distrib., American Stores Co., Philadelphia). 4 oz., 10¢.

Tea-Pot Mixed (packed by The Grand Union Co., NYC). 4 oz., 15¢.

Reeves' Florapek Mixed (distrib., Daniel Reeves stores, NYC). 4 oz., 15¢.

Nectar Mixed (A&P stores). 8 oz., 29¢.

FAIR QUALITY

Astor Mixed (imported by B. Fischer & Co., NYC). 4 oz., 15¢.

"ENGLISH BREAKFAST" TEA

FAIR QUALITY

Lipton's Purple Label English Breakfast (Thomas J. Lipton, Inc., Hoboken, N. J.). 8 oz., 49¢.

OOLONG TEA

GOOD QUALITY

Reeves' Florapek Oolong (distrib., Daniel Reeves stores, NYC). 4 oz., 15¢.

GREEN TEA

GOOD QUALITY

Tree Tea (M. J. B. Co., San Francisco).² 4 oz., 18¢.

² Available in West only.

Toilet Goods

ASTRINGENTS AND FACE LOTIONS

None of these products is of any value in "refining enlarged pores," "removing wrinkles," or performing other advertised miracles. Most of them are simply mixtures of alcohol and water, with a little perfume and coloring matter. These are generally harmless, although they have a tendency to dry the skin. Some contain harmful ingredients, such as carbolic acid, which may cause serious irritation, in especially sensitive skins or may damage the skin.

The temporary "shrinking" of the pore openings which these astringents produce can be obtained much less expensively with ice, cold water or such inexpensive alcohol solutions as witch hazel, bay rum or lavender water. The actual cost of the ingredients in a bottle of astringent selling for as much as \$1 is generally not more than 2 or 3 cents.

NOT ACCEPTABLE

Most commercial brands of astringents or face lotions, on the grounds of their exorbitant prices and false claims.

The following contained carbolic acid:

Ambrosia (Hinze Ambrosia).

Deborah Munroe Deep Pore Cleanser (T. Noonan & Sons).

Dr. Marshall's Face Lotion (T. Noonan & Sons).

Nancy Lee Skin Freshener (Spooners).

Pond's Skin Freshener (Pond's Extract Co.).

Dr. Ellis Balm (Dr. Ellis' Sales Co.).

Farel Destin Acne Lotion (Hyman & Hyman).

Harper Special Acne Lotion (Harper Method, Inc.). Contained mercury as well as carbolic acid.

Kew-Pee Antiseptic Lotion (Quality Products Co.). Contained mercury as well as carbolic acid.

CLEANSING TISSUES

Strong lightweight tissues are considered most satisfactory. Brands are listed in approximate order of desirability, considering price, strength, weight and very noticeable harshness. Ref.: *CU Reports*, June 1938.

(Cont'd next page)

56 CLEANSING TISSUES, FACE CREAMS

BEST BUYS

Nacella (Woolworth's). 200 single sheets, 10¢; 500 single sheets, 20¢.

Lyncrest (W. T. Grant stores). 200 single sheets, 10¢; 500 single sheets, 20¢.

ALSO ACCEPTABLE

Sanette (H. L. Green stores). 500 single sheets, 19¢.

Pond's. 150 single sheets, 10¢; 230 single sheets, 12¢.

Mary Scott Rowland (Whelan drugstores). 200 single sheets, 12¢; 500 single sheets, 23¢.

Venida roll-type package (smaller sheets). 220 sheets, 10¢.

Kleenex. 150 single sheets, 10¢; 500 single sheets, 28¢.

Chee-Kist (Woolworth's). 500 single sheets, 20¢.

Sitroux (Woolworth's). 180 single sheets, 10¢; 400 single sheets, 20¢.

Tyra (Whelan drugstores). 200 single sheets, 12¢.

Louise André (Associated Merchandising Corp.). 200 single sheets, 15¢; 500 single sheets, 35¢.

FACE CREAMS

The function of cold or cleansing cream is simply to remove dirt particles from the skin mechanically, and to give a slight lubricating effect. It cannot serve as a satisfactory substitute for soap and water, which is a much more efficient detergent (dirt remover) for cleansing the normal skin. It is helpful, however, in softening skin which tends to be dry.

Claims for special virtues such as wrinkle eradication, skin "feeding," "deep pore cleansing," removal of blackheads, &c., may be uniformly discounted. Nor does the addition of gold, grapefruit, avocado, vitamins or other such special ingredients confer additional virtue.

Perfume ratings are based on expert opinion. Individual preferences may, of course, differ.

Ref.: *CU Reports* and *Western CU Supplement*, April 1939.

BEST BUYS

(In order of increasing cost per oz.)

Belle Fleur Cold Cream.

Lander's Olive Oil Cream.

Hollywood Extra Theatrical
Cleansing Cold Cream.

Emporium Certified Cleans-
ing Cream.

The Owl's Theatrical Cold
Cream.

Macy's Cold Cream.

CD Cold Cream E6009.

ALSO ACCEPTABLE

(In order of increasing cost per oz.)

Max Factor's Theatrical Cold Cream.	Luxor Cold and Cleansing Cream.
Lady Esther Four Purpose Face Cream.	Matilda Hartman's Viennese Formula Cleansing and Massage Cream.
Grapefruit Cleansing Cream.	Elmo Cleansing Cream.
Embassy Cold Cream.	Pasteurized Face Cream.
Pond's Cold Cream.	Marvelous Cold Cream.
Armand Cold Cream.	Luxuria Cleanser.
Ruth Rogers Avocado Cleansing Cream.	Three Flowers Cleansing Cream.
Varady of Vienna Face Cream.	Salon Cold Cream.
Woodbury Cold Cream.	Coty Liquefying Cleansing Cream.
Boncilla Cleansing Cream.	Fricke's Cleansing Cream.
Pompeian Cleansing Cream.	Marmun Cleansing Cream.
Usola Cold Cream.	Cara Nome Cold Cream.
Squibb Cold Cream.	Almay Cold Cream.
Gladys Glad Cold Cream.	Dreama Cleansing Cream.
Princess Pat Skin Cleanser.	Yardley Cleansing Cream.
Albolene Solid Skin Cleanser.	Agnes MacGregor Rejuvenating Cleansing Cream.
Daggett & Ramsdell Cold Cream.	Cosray All Purpose Cream.
Phillips' Milk of Magnesia Cleansing Cream.	Barbara Gould Cleansing Cream.
Johnson's Baby Cream.	House of Westmore Cleansing Cream.
Max Factor Melting Cleansing Cream.	Doleith Cleansing Cream.
Cashmere Bouquet Cold Cream.	DuBarry Cleansing Cream.
Edna Wallace Hopper's Cleansing Cream.	Daggett & Ramsdell Golden Cleansing Cream.
Max Factor Normalizing Cleansing Cream.	Ardena Cleansing Cream.

CUTICLE REMOVERS

Cuticle removers consist of a strong alkali dissolved in water and glycerine, to which perfume may be added to make the product more appealing. Since the manufacturing processes are not always carefully controlled, commercial brands may at one time or another contain an excess of alkali, which may permanently damage the fingernails.

(Cont'd next page)

60 CUTICLE REMOVERS, DENTRIFICES

Cuticle removers which are strong enough to be effective (that is, to dissolve the cuticle) are not safe to use. The top layer of the skin is of the same general composition as the cuticle, and as the cuticle dissolves, an appreciable amount of the skin near it may come off as well with consequent irritation and possible infection.

If the remover is sufficiently diluted to be safe, it will be less effective. In fact, it may be better to use warm, soapy water instead; simply soak your fingertips in water, and push back the cuticle with a towel or an orange stick wrapped with cotton. Do not cut the cuticle.

DENTIFRICES

No toothpaste or powder can prevent decay, cure pyorrhea, whiten the teeth, disinfect the mouth, cure halitosis or prevent "pink toothbrush." The use of dentifrices for the purpose of removing "film" from the teeth is neither necessary nor desirable. Some "films" may actually protect the teeth. (This statement should not be taken to mean that ordinary food residues should not be removed.)

A toothpaste or powder may make brushing more pleasant and serve as a *slight mechanical aid* to the toothbrush in removing food particles from the teeth. But no toothpaste safe for daily use on the teeth can do more than this.

Powders are generally cheaper than pastes, and there is no essential difference in their cleansing properties.

The Federal Bureau of Standards found in tests of 25 widely sold toothpastes that 10 failed to meet the standards for abrasiveness which the government has adopted for its own purchases of toothpaste, and 11 failed to meet government standards in other respects. In tests for abrasiveness, following the Bureau of Standards method, CU found almost an equal proportion which were too abrasive.

The following ingredients which have been found in dentifrices are undesirable for daily use: sodium perborate, sugar, starch, potassium chlorate, acids, borax, betanaphthol, fluorides, orris root, and pumice or other harsh abrasives. Abrasive dentifrices, or over-vigorous brushing, are likely to be especially harmful to older persons and others having poor contact between teeth and gum margins. In such people the cementum (softest part of the tooth's surface) may be exposed.

A number of dentifrices have recently added an ingredient advertised under such names as "Irium," "Luster-Foam," &c.

This ingredient is a soap substitute (sulfated alcohol) similar to that used in the shampoo, *Drene*. It is less affected by hard water than soap, but we know of no evidence that it is of any particular value in a dentifrice.

The new liquid dentifrice, *Teel*, is also based on such an ingredient. Until dental authorities have had an opportunity to judge the comparative efficiency and safety of *Teel*, we do not recommend that it be used.

Special medicines or mouthwashes for the gums or teeth, and pyorrhea "cures," should be used, if at all, only on a dentist's prescription.

Chewing gums, including special ones "for the teeth," such as *Beech-Nut Oralgene*, are of no proven value to the teeth or gums.

Ratings are on the basis of 1936 tests and the results of more recent tests for abrasiveness. Prices were checked early in 1939.

References:

CU Reports, October 1936.

"Doctor, What Dentifrice Do You Recommend?"; American Dental Ass'n, Chicago. Free.

TOOTH POWDERS

BEST BUYS

Salt or Baking Soda. Dissolve $\frac{1}{4}$ teaspoon of either or both in half a glass of warm water, and dip brush into solution. Don't use salt crystals directly on the brush.

Precipitated Chalk, U.S.P., the finest obtainable. Purchase in pound lots at drugstores, 25¢ to 35¢ a lb.; cost per oz., about 2¢. Use as an ordinary tooth powder. If flavor is desired, mix in a few drops of oil of peppermint or oil of wintergreen (3 to 6 drops for each 4 oz. of chalk). Some samples tested were much too abrasive, probably due to small quantities of impurities present. *Purex* (United Drug Co.) and *Purepac* (Purepac Corp., NYC) were found satisfactory.

Dentifricium N. F. VI, a standard formula recommended by the American Dental Ass'n, can be made to order by most pharmacists. Use only the finest precipitated chalk (see above). Smoother and more pleasant tasting than the flavored chalk listed above. Cost varies, but should be about 85¢ a lb. Ask price in advance.

Pebeco (Lehn & Fink, Bloomfield, N. J.). 4½-oz. can, 21¢; cost per oz., 4.9¢. Differs from *Pebeco* toothpaste in that it

62 TOOTH POWDERS

BEST BUYS—CONT'D

contains no potassium chlorate. See *Pebeco* toothpaste.
Colgate (Colgate-Palmolive-Peet, Jersey City, N. J.). 4½-oz. can, 33¢; cost per oz., 7.3¢.

ALSO ACCEPTABLE

(In order of cost per oz.)

Dentray (Dentray Co., NYC). 4½-oz. can, 33¢.

Squibb (E. R. Squibb & Sons, NYC). 4½-oz. can, 33¢.

Dr. Lyon's (R. L. Watkins Co., NYC). 4½-oz. can, 39¢.

Listerine (Lambert Pharmaceutical Co., St. Louis). 4½-oz. can, 39¢. Somewhat abrasive.

NOT ACCEPTABLE

Ward's. Refillable 3½-oz. can, 17¢ plus postage. Excessively abrasive.

Pepsodent (Pepsodent Co.). Excessively acid; might injure enamel.

Forhan's (Forhan Co.). Not beneficial to gums as claimed. Price high.

Albodon (William R. Warner & Co.). Company made false claims of composition in advertising.

Pyrozide (Dentinol and Pyrozide Co.). Contained medical ingredients of doubtful value. Excessively abrasive.

Foresite Dental Preparation (Foresite Mfg. Co.). Contained 28% pumice, extremely destructive to tooth enamel.

Lavita (Lavita Co.). Contained 84% pumice. Very harmful.

The following contain sodium perborate, which may be harmful. Preparations claiming to contain it, or claiming to release oxygen bubbles in the mouth, should be avoided.

Sodibor (Sodibor Laboratories). 98% sodium perborate. Also contained phenol (carbolic acid) and phenolphthalein. Claims objectionable.

Calox (McKesson & Robbins). Contained sodium perborate. Expensive.

Zincora (Park Laboratories). Comments under *Calox* apply. Somewhat abrasive.

Macy's Tooth Powder with Sodium Perborate. Contained 11.7% sugar, as well as 12.45% sodium perborate. Both objectionable.

Vince (Vince Laboratories). Sodium perborate, colored and flavored, sold at a great markup.

NOT ACCEPTABLE—CONT'D

Astring-O-Sol (Frederick Stearns & Co.). Contained sodium perborate.

O. H. (Oral Hygiene Laboratories). Contained medical ingredients of doubtful value.

TOOTHPASTES

The cost per oz. given is the cost per ounce dry weight.

BEST BUYS

Milk of Magnesia Toothpaste (J. R. Brundage, NYC; F. & W. Grand's and other stores). 10¢ a tube; cost per oz., 9.4¢.

CD (Cooperative Distributors, NYC). 21¢; cost per oz., 10.1¢ plus postage.

ALSO ACCEPTABLE

Iodent No. 1; Iodent No. 2 (Iodent Chemical Co., Detroit). 33¢ per tube, each. Cost per oz.: No. 1, 12.8¢; No. 2, 13.4¢.

Both somewhat abrasive.

Ward's Milk of Magnesia Toothpaste. Somewhat abrasive.

NOT ACCEPTABLE

Listerine Toothpaste (Lambert). Excessively abrasive.

Milk-I-Dent (Woolworth's). Formerly rated as a "Best Buy," but numerous complaints were received that this product hardens in the tube before it is all used. Somewhat abrasive.

Wrigley's Spearmint (Wrigley Pharmaceutical Co.). Excessively abrasive.

Pepsodent. Excessively acid. There is some indication that this toothpaste may have harmful solvent action on the tooth enamel.

Kolynos (Kolynos Co.). Will not whiten teeth as claimed. Price excessive.

Ipana (Bristol-Myers Co.). Contained betanaphthol, a substance likely to irritate gums. Price excessive.

Dr. McArthur's Dental Massage (Professional Research Laboratories). Price prohibitive.

Kramer's Original Charcoal Dental Cream (Modern Products). Charcoal content valueless and potentially harmful.

S.T. 37 (Sharp & Dohme). Contained a small amount of hexylresorcinol (a much overrated antiseptic) which is of no value in this use. Several cases of acute inflammation of the lips and mouth have been traced to this toothpaste.

Forhan's. Not beneficial to gums as claimed. Abrasive.

(Cont'd next page)

64 TOOTHPASTES, TOOTH BLEACHES

NOT ACCEPTABLE—CONT'D

Squibb Dental Cream. Rejected by American Dental Ass'n for misleading claims.

Worcester Salt Toothpaste (Worcester Salt Co.). Exaggerated claims regarding benefits of salt objectionable.

Silica Products Co. has purchased a patent (U. S. No. 1,943,856) for a dentifrice containing a fluoride, a highly poisonous substance.

The following contained potassium chlorate, a poison:

Pebeco. (New Pebeco toothpaste no longer contains chlorate, but CU does not have information on its quality in other respects.)

The following toothpastes contained starch, which may promote decay:

Bost (Wasey Products).

Dr. West's (Weco Products Co.).

Craig-Martin Milk of Magnesia Toothpaste (Craig-Martin). Also too abrasive.

Colgate Ribbon Dental Cream. Also somewhat abrasive.

Phillips' Magnesia Toothpaste (Charles H. Phillips). Somewhat abrasive.

Sears' Milk of Magnesia Toothpaste.

Pep-R-Mint Milk of Magnesia Toothpaste (Redd Chemical Co.).

New Mix (Gilmer Products Co.).

The following toothpastes were sold in lead tubes, which break easily, turn the contents black and may involve danger of poisoning: Royal Blue Milk of Magnesia; Sheray Milk of Magnesia; Dr. Sachs Milk of Magnesia; D. D. S.; Vogue.

CLEANERS FOR ARTIFICIAL TEETH

A good toilet soap, chalk, or baking soda and a suitable brush are the best equipment for this job. Special cleansers for artificial dentures may contain harmful abrasives or alkaline detergents which are injurious to some denture materials.

TOOTH BLEACHES AND STAIN REMOVERS

No preparation can safely whiten teeth. Some preparations which are not safe may whiten teeth, but even one application can cause irreparable damage to the tooth enamel.

No preparation can safely remove tartar; it can be removed

only by a dentist with the use of special instruments. Beware of preparations claiming to be especially effective in removing stains from the teeth.

NOT ACCEPTABLE

Bleachodent; Elkay; Ex-Tartar; Tartaroff; Snowy-White; Taxi; Ransom & Randolph's; Ex-cel; Wetherill Prophylaxis.

DENTURE FASTENERS

These powders, intended for holding false teeth in place, consist usually of vegetable gums, with or without "antiseptics" and flavoring materials. According to the American Dental Ass'n, *they should be used only temporarily, if at all*, because the patient who uses them is less likely to build up a system of habits necessary for the successful wearing of an artificial denture. In addition, the continuous use of adherents may encourage the user to prolong the wearing of a denture which no longer fits correctly. This may result in serious irritation.

DEODORANTS

Deodorants cover up but do not check or prevent the unpleasant odor of perspiration. (See "Perspiration Suppressors," page 77.) The occurrence and seriousness of human "body odor" has been exaggerated by the makers of such products as *Lifebuoy*. In most cases regular bathing with a toilet soap gives adequate protection.

BEST BUYS

Boric Acid, powdered. May be mixed with perfumed talcum powder if desired.

Solution of Baking Soda in warm water. Use about 2 or 3 teaspoonsful to a glass.

ALSO ACCEPTABLE

Amolin (Norwich Pharmacal Co., Norwich, N. Y.). 2-oz. can, 32¢. Consisted of perfumed boric acid.

NOT ACCEPTABLE

Lifebuoy Soap. (See "Toilet Soaps," page 94.)

EYELASH AND EYEBROW PREPARATIONS, MAKE-UP FOR THE EYES

No dye should ever be used on the eyelashes or eyebrows. Loss of sight and even death has been caused by a liquid eyelash preparation containing an aniline dye.

Mascara and eyebrow pencils are relatively safe, although even these may cause irritation.

Mascara is sold in cake, cream and liquid forms; the choice is mainly one of personal preference. Eyebrow pencils are usually harmless, consisting of finely divided carbon in a wax-and-mineral-oil base.

ACCEPTABLE

The following mascaras and eyebrow pencils were reported to be harmless:

Delica Brow (stick black, liquid black, and liquid brown).

Ellso White Mascaro (stick black).

Liquid Lash Lux (black).

Masque (stick black).

Maybelline.

Tangee (stick brown).

NOT ACCEPTABLE

Eye-Tec. Contained a silver salt and pyrogallol.

Perma-Coleur. Has caused poisoning.

Winx. Contained iron oxide in a resin base.

The following contained aniline dyes: **Codefroy French Hair Coloring (Larieuse)**, **Lash-Lure**, **Phantom Brow** (liquid brown), **Andre, Di-Lash, Loris, Louise Norris.**

The following contained silver nitrate: **Dark Eyes, Coloura** (black), **Roux Lash and Brow Tint** (black and brown).

Sale of the two following preparations was prohibited in New Hampshire by the State Board of Health: **Luxury Lash and Brow Coloring, Hollywood Lash Dye.**

EYELASH "GROWERS"

All "eyelash growers" are fakes; no known substance or preparation can make hair grow.

NOT ACCEPTABLE

H. M. Eyelash and Eyebrow Grower.

Kurlene Eyelash Grower. Contained mercury.

NOT ACCEPTABLE—CONT'D

*Lur-Eye Lash Developer.**Maybelline Eyelash Tonic Cream.*

HAIR DYES

There is no way to *restore* the natural color to hair which has become gray. Products advertised to do this are usually dyes which impart the same color to all hair, regardless of the original shade.

Unfortunately, none of the really effective hair dyes is completely safe, and the safe ones are not effective. If a hair dye must be used, the amine ones described below are considered the most satisfactory, *provided a skin test is performed before each application, to see whether the individual is sensitive to the dye to be applied.*

Bleaches are able to remove color from the hair, thus producing various blond shades. Their continued use may make the hair dry and brittle.

Ref.: CU Reports, January 1939.

HAIR DYES

ACCEPTABLE

The following amine-type dyes are effective, and may be used without harm by most people. But they are "Acceptable" only if a preliminary skin test is made before each use, and the person tested is found not to be sensitive.

Eau Sublime (The Guilmar Co., NYC). 89¢ a set.

Inecto (Sales Affiliates, Inc., NYC). \$3.69 a set.

Instant Clairol (Clairol, Inc., NYC). 89¢ a set.

Paragon Hair Coloring (Paragon Distributing Corp., NYC). 75¢ a set.

Rap-I-Dol (Rap-I-Dol Distributing Corp., NYC). \$1.25 a set.

Simplex (Dr. W. G. Korony, Louisville, Ky.). 89¢ a set.

Eternal Tint Oil Shampoo (Paragon Corp.). \$1 a set.

Loxol Oil Shampoo Tint (Sales Affiliates, Inc.). \$1 a set.

Henna dyes which produce reddish tints only, are harmless to most people. But they are often adulterated with copper or other metallic salts, possibly harmful. The following were pure powdered henna:

68 HAIR DYES, BLEACHES

ACCEPTABLE—CONT'D

Henna San (Lehn & Fink, NYC). 45¢ a can.

Egyptian Henna (V. Vivadou, NYC). 39¢ a can.

The following dye was reported by the American Medical Ass'n to be essentially harmless, but only temporary:

Progressive Clairol. Note that *Instant Clairol* above is of different composition, and may be harmful to some people.

NOT ACCEPTABLE

Dyes containing metallic salts, or pyrogallol, or any dye of unknown composition.

The following dyes contained lead:

Barbo Compound, Bay-Roma, Coffelt's Hair Coloring, Hay's Hair Health, Hess Hair Milk, Kolor-Bak, La Creole Hair Dressing, Lea's Hair Preparation, Nourishine, O'Dell's Hair Color Restorer, Parker's Hair Balsam, Q-Ban Hair Color Restorer, Van's Mexican Hair Restoro, Westphal's Hair Renewer Aid, Wyeth's Sage and Sulphur Compound, Youthray.

The following dyes contained silver:

Buckingham's Dye for Whiskers, Canute Water, Mary T. Goldman's Quick Hair Color, Mary T. Goldman's Gray Hair Color Restorer, Hill's Hair and Whisker Dye, La Creole Hair Color Restorer, Royal Hair Restorer.

The following dyes contained pyrogallol:

Brownatone, C. Damschinsky's Liquid Hair Dye, Grayban, Neos-Henne, B. Paul's Henna, B. Paul's Liquid Mixture, Wallutta Hair Stain, Mrs. Potter's Walnut Tint Hair Stain.

HAIR BLEACHES

ACCEPTABLE

Hydrogen Peroxide. Ordinary 3% solution will do, but 5% is better; a small amount of ammonia improves the action.

Marchand's Golden Hair Wash (Charles Marchand Co., NYC). 4-oz. bottle, 36¢. Essentially a 5% peroxide solution.

"White Henna."

NOT ACCEPTABLE

Lechler's 569 Instantaneous Hair Lightener (Lechler Laboratories). Manufacturer was ordered to cease representing that this peroxide bleach (1) does not contain peroxide; (2) is superior to peroxide; (3) is harmless and beneficial.

Sodium Perborate. Powder-type bleaches are apt to consist of sodium perborate.

HAIR REMOVERS

Only electrolysis (killing hair roots one by one with an electric needle) can permanently remove unwanted hair safely. Electrolysis is, however, expensive, tedious, somewhat painful, and if not handled by a skilled operator may disfigure the skin. The single-needle method involves less danger of scarring than the multiple-needle method. No electric machine for self-removal of hair is acceptable. High-frequency current (diathermy) methods are much less satisfactory than electrolysis skillfully done.

X-ray treatment is dangerous and should never be used. Special "systems" or treatments advertised as methods for permanent hair removal sometimes involve x-rays without so stating.

Most depilatory creams or powders contain an alkaline sulfide, which dissolves the hair but unfortunately tends to dissolve the skin also and may seriously harm the skin. Sulfide preparations should be used, if at all, with great care and they must never be applied to the face, since contact with the eyeballs can result in loss of sight. (They can be recognized by their rotten-egg odor even though perfume is usually added in an attempt to disguise this odor.)

Pulling hair out with wax or rubbing it away with abrasives (pumice, &c.) may cause irritation and inflammation, especially in persons with delicate and sensitive skin. "Tweezing"—pulling the hairs out one by one—accomplishes the same effect as do the waxes. It may lead to infection unless care is taken to disinfect both the instrument and the site from which the hairs are to be removed.

Unwanted hair, if dark, can be rendered less conspicuous by bleaching with hydrogen peroxide. Add a few drops of household ammonia to an ounce of fresh 3% hydrogen peroxide, and apply.

Ref.: *CU Reports*, March 1938.

(Cont'd next page)

70 HAIR REMOVERS, HAIR TREATMENTS

NOT ACCEPTABLE

SULFIDE DEPILATORIES

<i>Anita.</i>	<i>Le Gay.</i>
<i>Colonial Dames.</i>	<i>Neet Cream.</i>
<i>Del-A-Tone.</i>	<i>Tis-Gon Powder.</i>
<i>Del-A-Tone Snow-White.</i>	<i>X-Bazin Cream.</i>
<i>De Miracle.</i>	<i>X-Bazin Powder.</i>
<i>De Wans.</i>	<i>Zip Cream.</i>
<i>Evans' Depilatory Outfit.</i>	<i>Zip Powder.</i>

WAX-TYPE DEPILATORIES

<i>Croxon Plastik.</i>	<i>Rahnee Wonder Waxstik.</i>
<i>Dawson's Cream.</i>	<i>Zip Facial Hair Remover.</i>

ABRASIVES

<i>Baby Touch.</i>	<i>Hollywood Mitt.</i>
	<i>Lanzette.</i>

ELECTROLYSIS APPARATUS

The following are "Not Acceptable" because they were recommended for self-operation, or because of other objectionable claims.

<i>Canfield.</i>	<i>Debaugh.</i>
	<i>Mahler.</i>

HAIR TREATMENTS

There is no known cure for baldness, nor any sure preventive. Dermatologists believe, however, that some types of baldness can be traced to dandruff, for which some drugs are known to be effective treatments.

Some proprietary hair tonics contain harmful substances, among them arsenic; others are merely combinations of alcohol and water which can have no beneficial effect.

If the hair is too dry, a small amount of mineral oil (liquid petrolatum or vaseline) or a vegetable oil such as olive or castor oil may be applied with the palms of the hands, and spread by brushing. Stimulate circulation by frequent brushing, but do not wet the hair too often with water.

Excessive oiliness of the hair may be relieved by alcohol rubs and by using alcoholic soap solutions (such as tincture of green soap) for the shampoo. In extreme cases a physician

HAIR TREATMENTS, HAND LOTIONS 71

should be consulted, since constitutional treatment or change in diet may be necessary.

ACCEPTABLE

For Dandruff, shampoo the hair once a week, or oftener if hair is not too dry. If hair is oily, use tincture of green soap, U.S.P., as a shampoo. Rinse hair thoroughly with water.

The following formula is recommended for dandruff (it can be prepared by any pharmacist, and should cost from 60¢ to 70¢—no more):

Resorcinol, 2 drams (if hair is blond, resorcinol monoacetate may be substituted to avoid discoloration; this will increase price of the preparation);

Betanaphthol, 10 grains;

Olive oil, 3 drams;

Ethyl alcohol (70%), 8 ounces (rubbing alcohol will do).

Apply each morning and night for at least one month, thoroughly moistening scalp and rubbing in with fingertips. (Take care not to get the lotion in the eyes.) Do not be alarmed if a temporary increase in falling hair results. If too drying to hair, apply olive oil. *But if the scalp becomes irritated (as evidenced by burning, redness, soreness, or swelling), use of the lotion should be discontinued at once.*

NOT ACCEPTABLE

Xervac (Crosley Radio Corp.). The A.M.A. states that claims made have not been substantiated by experimental evidence.

The following are but a few of the innumerable hair tonics and treatments which are not recommended:

Cel-O-Ray, Formula 37, The Thomas', Ultrasol, Tarola, Harper Method Tonique, Pro-Ker, Japanese Oil, Vitalis, Glover's Imperial Saroptic Mange Medicine, Danderine, Dander-Off, Glover's Imperial Mange Medicine, Herpicide, Kreml Hair Tonic, Liquid Arvon, Wildroot Hair Tonic, Listerine, Fitch's, Yost's Bald-No-More.

HAND LOTIONS

Most proprietary hand lotions are harmless. A few, however, contain carbolic acid or chemically related substances, and these should be avoided. It is less expensive and just as beneficial to use lanolin, cold cream or a vegetable oil such as olive oil.

Ratings and prices are based on tests made in 1936.

(Cont'd next page)

72 HAND LOTIONS

Ref.: CU Reports, Jan.-Feb. 1937, and correction March 1937.

BEST BUYS

Lanolin. Proprietary, perfumed products, such as *Squibb's* Toilet Lanolin, which sells for about 15¢ a tube, are more pleasant to use than ordinary anhydrous lanolin.

Olive Oil.

Cold Cream (see page 58).

ALSO ACCEPTABLE

	COST PER BOTTLE (¢)	FL. OZ. PER BOTTLE	COST PER FL. OZ. (¢)
<i>Ambrosia</i> (Hinze Ambrosia)	10	1	10
	75	3½	21.4
<i>Barbara Gould</i> (Barbara Gould)...	50	3¾	13.3
<i>CD</i> (Cooperative Distributors)	35	6¾	5.2 ¹
<i>Cashmere Bouquet</i> (Colgate-Palm- olive-Peet)	10	1½	6.7
<i>Chamberlain's</i> (Chamberlain Labora- tories)	10	¾	13.3
	50	3¾	13.3
<i>Coty</i> (Coty)	75	3.8	19.7
<i>Dorothy Gray</i> (Dorothy Gray).....	1.00	3.9	25.6
<i>Frostilla</i> (Frostilla Co.).....	50	3½	14.3
	10	.65	15.4
<i>Hand-o-Tonik</i> (Elizabeth Arden)...	1.00	3.5	28.6
<i>Harriet Hubbard Ayer</i> (Harriet Hubbard Ayer)	1.19	6	19.8
<i>Harriet Hubbard Ayer Almond Honey Cucumber</i>	85	4	21.1
<i>Hinds Honey and Almond Cream</i> (Lehn & Fink).....	50	4	12.5
	10	.8	12.5
<i>Kitchen</i> (Martha Adams)	29	16	1.8
<i>Lander's Almond Benzoin</i> (Lander Co.)	10	4	2.5
<i>Macy's Almond</i> (Macy's)	59	11.9	5
<i>Mystic</i> (Mystic Laboratories)	25	2¾	9.1
<i>Squibb</i> (E. R. Squibb)	50	3½	14.3
<i>Valaze</i> (Helena Rubinstein)	1.00	4	25

¹ Plus postage.

LIPSTICKS

Most lipsticks contain an indelible dye known as "bromo-acid." Bromo-acid has a purplish color, which remains after the other colors in the lipstick have worn away, and it seems to increase the photosensitivity (sensitivity to light) of the lips, and may increase their tendency to become sunburned. Some people are sensitive to bromo-acid, and even a single application may cause serious irritation. Despite these flaws, most women still prefer an indelible lipstick to a non-indelible one such as *Houbigant* or *Elmo*.

The lipstick container should be easy to operate. There are two types in general use: The swivel type and the push-up type. The swivel is the more satisfactory.

The following ratings are based on expert opinion. Individual judgment, particularly of the perfumes, may differ. Changes in the ratings in most cases reflect changes by manufacturers since CU's last test, in 1937.

The 10¢ and 20¢ brands are generally available in the 5-&10-cent stores; others can be bought in drug and department stores.

Ref.: *CU Reports*, May 1939.

BEST BUYS

(In order of increasing cost per gram, but note comments)

Cashmere Bouquet. 10¢. Push-up container. Consistency satisfactory.

Elizabeth Post. 10¢. Swivel container. Rather soft.

Flame-Glo. 10¢. Push-up container. Consistency satisfactory.

Park & Tilford. 10¢. Push-up container. Consistency satisfactory.

Varady of Vienna. 10¢. Push-up container. Rather hard, stays on lips well.

Princess Pat. 10¢. Push-up container. Consistency satisfactory.

ALSO ACCEPTABLE

(In order of increasing cost per gram, but note comments)

Heather Jumbo. 10¢. Push-up container. Rather soft.

Irresistible. 10¢. Swivel container. Consistency satisfactory.

Embassy. 20¢. Push-up container. Rather soft.

Outdoor Girl Olive Oil. 10¢. Push-up container. Consistency satisfactory.

(Cont'd next page)

ALSO ACCEPTABLE—CONT'D

- Tattoo.** 10¢. Push-up container. Rather hard.
- CD** (Cooperative Distributors). 25¢. Swivel container. Consistency satisfactory.
- Carioca.** 20¢. Push-up container. Consistency satisfactory.
- Lady Esther.** 10¢. Push-up container. Consistency satisfactory.
- Marvelous.** 55¢. Push-up container. Rather soft.
- Kissproof.** 10¢. Push-up container. Consistency satisfactory.
- House of Westmore.** 25¢. Push-up container. Consistency satisfactory.
- Cheramy.** 39¢. Push-up container. Consistency rather soft.
- Duart Creme of Milk.** 59¢. Swivel container. Consistency satisfactory.
- Cutex.** 45¢. Swivel container. Consistency satisfactory.
- Drezma.** 10¢. Push-up container. Consistency satisfactory.
- Harriet Hubbard Ayer.** 55¢. Push-up container. Rather soft.
- Gemey.** 75¢. Swivel container. Rather soft.
- Macy's.** 54¢. Swivel container. Rather soft.
- Evening in Paris.** 55¢. Swivel container. Consistency satisfactory.
- Valaze** (Helena Rubinstein). 50¢. Push-up container. Rather soft.
- H.S.G. Permanent.** 69¢. Swivel container. Rather soft.
- Trulip.** 89¢. Swivel container. Consistency satisfactory.
- Du Barry.** \$1. Swivel container. Consistency satisfactory.
- Coty Sub-Deb.** 50¢. Swivel container. Consistency satisfactory.
- Max Factor's Hollywood.** 50¢. Swivel container. Consistency satisfactory.
- Guerlain Rouge a Levres.** \$1.25. Swivel container. Consistency satisfactory.
- Tangee.** 10¢. Very small container, with no device to regulate length of stick. Rather hard consistency.
- Martha Washington Colonielle.** 89¢. Swivel container. Rather soft.
- Daggett & Ramsdell.** \$1. Swivel container. Rather soft.
- Valaze.** \$1.50. Swivel container. Rather soft.
- Elmo.** 98¢. Swivel container. Rather soft. Contained no indelible dye.
- Prince Matchabelli.** 89¢. Swivel container. Consistency satisfactory.
- Dorothy Gray.** \$1. Swivel container. Consistency satisfactory.
- Lentheric Bal Masque.** \$1. Swivel container. Rather soft.
- Almay.** \$1.10. Swivel container. Consistency satisfactory.

ALSO ACCEPTABLE—CONT'D

Houbigant. 98¢. Swivel container. Smooth, satisfactory consistency. Contained no indelible dye.

Mary Dunhill. \$1. Swivel container. Rather soft.

Charles of the Ritz. \$1.50. Swivel container. Rather soft.

Drumstick Charbert. \$1. Swivel container. Consistency satisfactory.

Primrose House. 98¢. Swivel container. Consistency satisfactory.

Elizabeth Arden Victoire. \$1.50. Swivel container. Rather soft.

NOT ACCEPTABLE

Rejovia. 10¢. Sticky.

Savage. 20¢. Consistency rather hard, but sticky and smeary.
Woodbury "Germ Proof". 10¢. Rather soft. Sample tested had rancid odor.

Angelus Rouge Incarnat. 59¢. Soft and smeary.

Seventeen. 98¢. Soft and smeary.

Pompeian. 98¢. Rather soft and smeary. Sample tested had rancid odor.

Barbara Gould. \$1. Soft, smeary and sticky.

Yardley. 85¢. Soft and smeary. Greasy odor.

MOUTHWASHES AND GARGLES

No mouthwash can disinfect the mouth except very partially and temporarily. Nor can any cure "halitosis," prevent colds, or do the other miracles advertised. For a short time, mouthwashes can mask mouth odors by covering them with their own odor.

Chronic unpleasant breath may be a symptom of several disease conditions, some of them serious, which should be treated by a dentist or a physician.

If it is desired to use a mouthwash, a solution made by adding a quarter-teaspoonful of salt to a half-glass of warm water is harmless, inexpensive, and as useful as any of the commercial preparations. If there is much mucus present, add a quarter-teaspoonful of baking soda to the mixture. Or "alkaline aromatic solution, N.F.," a pleasant mouthwash or gargle, may be purchased from your druggist. Gargling with water in which aspirin tablets have been crushed is of little value in the treatment of sore throat. Sodium perborate,

76 MOUTHWASHES, PERMANENT WAVES

or preparations containing it, should be used only upon the advice of a doctor or dentist, as frequent or careless use can cause severe injury to the mucous membrane of the mouth.

NOT ACCEPTABLE

Analka.
Astring-O-Sol.
Glyco-Thymoline.
Hexylresorcinol Solution
S.T. 37.
Lavoris.
Listerine.
Dr. Lyon's Mouthwash.

Orosan.
Orygene.
Pepsodent.
Rubizan.
Thymoline.
Vick's Voratone.
Vince.
Zonite.

NAIL PREPARATIONS

A project on nail polishes and polish removers is now under way and scheduled to appear in an early issue of the *Reports*.

PERMANENT WAVES

In every permanent wave, much depends on the skill of the operator. And most of the money that is spent for a permanent wave pays for skill rather than for the material used. That's why cheap permanent waves, in the \$1 category, are usually unsatisfactory. Often they omit the thorough shampoo which should precede and follow each wave. Generally there is little or no attention paid to individual requirements, and frequently the net result is an overdose of treatment, with consequently scorched, brittle and woolly hair.

Reliable establishments do not rely on the operator's judgment alone, but supplement it with a test curl (curling one strand before doing the entire head). A test curl is desirable for any hair, but it is essential for hair that has been bleached or dyed, white hair, or hair on which tonics and ointments have been used. Another protection which the customer should demand is that the pads which are placed under the curlers to protect the head from burns be new or sterilized between waves. Such pads come into direct contact with the scalp and, if used over and over without sterilization, offer an excellent means for spreading infection.

Outfits for permanent waving at home sell for \$1 or less. Tests indicate that the hair of some individuals is virtually

unaffected by treatment of this sort; that of others has a slight wave at the end of the process. Even then, the result is not likely to be successful.

Ref.: CU Reports, May 1938.

NOT ACCEPTABLE

The following are but a few of the home permanent waving outfits on the market. All of them depend on alkalies, without heat, for their results. Until some factor has been devised to replace thorough instruction and experience on the part of the operator, these outfits, and any others like them, must be considered "Not Acceptable."

Sandra (Sandra Laboratories, NYC).

Fashonia (Gimbel Bros., NYC).

Societe (Societe Coiffure, Inc., NYC).

Andre's (Andre's, NYC).

Artcurl (Artcurl, NYC).

Endura (The Endura Corp., Hollywood, Calif.).

Movie Wave (Movie Cosmetics Co., Hollywood, Calif.).

PERSPIRATION SUPPRESSORS

Most commercial perspiration suppressors are solutions of aluminum chloride. This drug may irritate the skin, especially if its concentration is greater than 25%; a 10% or 15% solution is generally satisfactory unless there is sensitivity to the chemical. Be careful to permit the solution to dry completely, since aluminum chloride is harmful to fabrics.

Do not apply any perspiration suppressor to the skin within two days after removing hair.

A 2% solution of formaldehyde or a 15% solution of aluminum chloride is just as effective as the commercial brands, and much cheaper.

See also "Deodorants," page 65.

BEST BUYS

Formaldehyde, 2% Solution (drugstores). 4-oz. bottle, about 20¢-25¢. Sponge on affected parts, wipe dry and apply ordinary talc. If this solution is found irritating, discontinue use, and try the aluminum chloride solution below.

Aluminum Chloride, 15% Solution (drugstores). 4-oz. bottle, about 20¢-25¢. Apply to affected parts and *let dry before allowing to touch clothing*. If found irritating, dilute with

78 FACE POWDERS

water, or stop using. If not irritating but not effective, a 20% or 25% solution can be tried.

ALSO ACCEPTABLE

The following contained aluminum chloride in less than 25% solution:

Instant Dew Deodorant (Vandy, Inc., NYC).

Hush Liquid Deodorant (Hush Co., Philadelphia).

Instant Odorono (Odorono Co., NYC).

NOT ACCEPTABLE

Ultra Dew Deodorant (Vandy, Inc.). Contained more than 25% aluminum chloride.

Heck Deodorant (Heck-Conard Co.). Contained 50% aluminum chloride.

Non-Spi (Non-Spi Co.). Contained 3 powerful astringents. Effective, but not considered entirely safe. Claims were false and misleading.

Regular Odorono. Contained more than 25% aluminum chloride.

FACE POWDERS

Almost every brand of face powder examined by CU early in 1939 was packaged in a deceptive and slack-filled container.

The production of a good face powder requires only well-known and inexpensive ingredients. Claims based on the use of rare or mysterious ingredients should be regarded with extreme skepticism. Harmful adulterants are now seldom used. Starch is the only objectionable ingredient likely to be found at present; it may cause dryness or irritation when used on some skins.

Examination by CU did not reveal any important differences in quality in the brands listed. Purchase should, therefore, be based almost solely on the *cost per ounce* (not on the cost per box). If necessary, try small boxes of several low-cost brands, until you find one meeting your individual preferences as to perfume, shade, container, &c.

The following list is in order of increasing cost per ounce. Where a brand is sold in more than one size, the order of listing is based on the most economical size (not necessarily the largest).

Ref.: CU Reports and Western CU Supplement, April 1939.

ACCEPTABLE

(In order of increasing cost per oz.)

<i>Irresistible Face Lure.</i>	<i>April Showers.</i>
<i>Fascination.</i>	<i>Mello-Glo.</i>
<i>Ruth Rogers Avocado.</i>	<i>Luxuria.</i>
<i>Elizabeth Post.</i>	<i>Francine.</i>
<i>CD.</i>	<i>Merle Norman.</i>
<i>Lander's Olive Oil.</i>	<i>Tangee.</i>
<i>Gladys Glad.</i>	<i>Dorothy Gray Portrait.</i>
<i>Embassy.</i>	<i>Pompeian Beauty Powder.</i>
<i>Cashmere Bouquet.</i>	<i>Agnes MacGregor Fleurette.</i>
<i>Howe's Air Filtered.</i>	<i>Drezma.</i>
<i>Pond's.</i>	<i>Coty Air Spun Poudre de</i>
<i>Woodbury.</i>	<i>Beauté.</i>
<i>Outdoor Girl Olive Oil.</i>	<i>Lady Marlow.</i>
<i>Miner's New Texture.</i>	<i>Daggett & Ramsdell.</i>
<i>Bourjois Poudre Java.</i>	<i>Constance Bennett.</i>
<i>Luxor.</i>	<i>Yardley.</i>
<i>House of Westmore.</i>	<i>Barbara Gould.</i>
<i>Lady Esther.</i>	<i>Evening in Paris.</i>
<i>Varady of Vienna.</i>	<i>Houbigant Quelques Fleurs.</i>
<i>Lovely Lady.</i>	<i>DuBarry.</i>
<i>Princess Pat.</i>	<i>Helena Rubinstein Flower</i>
<i>Marvelous.</i>	<i>Petal.</i>
<i>Colonial Dames.</i>	<i>Poudre Antoine.</i>
<i>Vivian Trent.</i>	<i>Doraldina.</i>
<i>Chiffon.</i>	<i>Doleith.</i>
<i>Max Factor.</i>	<i>Town & Country Novena.</i>

NOT ACCEPTABLE

The following brands contained starch, which may be objectionable (see text):

<i>Betty Lou Gardenia.</i>	<i>Djer-Kiss.</i>
<i>Betty Woods.</i>	<i>Prince Matchabelli.</i>
<i>Edna Wallace Hopper's</i>	<i>Elizabeth Arden Poudre</i>
<i>Super-Cling.</i>	<i>d'Illusion.</i>

RAZOR BLADES

The quality of most brands of razor blades varies over a wide range. Good and bad blades are found in the same carton; even the two edges of the same blade may differ widely in sharpness. Probably no brand can be relied on to be of

78 FACE POWDERS

water, or stop using. If not irritating but not effective, a 20% or 25% solution can be tried.

ALSO ACCEPTABLE

The following contained aluminum chloride in less than 25% solution:

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Hush Liquid Deodorant (Hush Co., Philadelphia).

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Ultra Dew Deodorant (Vandy, Inc.). Contained more than 25% aluminum chloride.

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Non-Spi (Non-Spi Co.). Contained 3 powerful astringents. Effective, but not considered entirely safe. Claims were false and misleading.

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<i>Ruth Rogers Avocado.</i>	<i>Luxuria.</i>
<i>Elizabeth Post.</i>	<i>Francine.</i>
<i>CD.</i>	<i>Merle Norman.</i>
<i>Lander's Olive Oil.</i>	<i>Tangee.</i>
<i>Gladys Glad.</i>	<i>Dorothy Gray Portrait.</i>
<i>Embassy.</i>	<i>Pompeian Beauty Powder.</i>
<i>Cashmere Bouquet.</i>	<i>Agnes MacGregor Fleurette.</i>
<i>Howe's Air Filtered.</i>	<i>Drezma.</i>
<i>Pond's.</i>	<i>Coty Air Spun Poudre de</i>
<i>Woodbury.</i>	<i>Beauté.</i>
<i>Outdoor Girl Olive Oil.</i>	<i>Lady Marlow.</i>
<i>Miner's New Texture.</i>	<i>Daggett & Ramsdell.</i>
<i>Bourjois Poudre Java.</i>	<i>Constance Bennett.</i>
<i>Luxor.</i>	<i>Yardley.</i>
<i>House of Westmore.</i>	<i>Barbara Gould.</i>
<i>Lady Esther.</i>	<i>Evening in Paris.</i>
<i>Varady of Vienna.</i>	<i>Houbigant Quelques Fleurs.</i>
<i>Lovely Lady.</i>	<i>DuBarry.</i>
<i>Princess Pat.</i>	<i>Helena Rubinstein Flower</i>
<i>Marvelous.</i>	<i>Petal.</i>
<i>Colonial Dames.</i>	<i>Poudre Antoine.</i>
<i>Vivian Trent.</i>	<i>Doraldina.</i>
<i>Chiffon.</i>	<i>Doleith.</i>
<i>Max Factor.</i>	<i>Town & Country Novena.</i>

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<i>Betty Lou Gardenia.</i>	<i>Djer-Kiss.</i>
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<i>Super-Cling.</i>	<i>d'Illusion.</i>

RAZOR BLADES

The quality of most brands of razor blades varies over a wide range. Good and bad blades are found in the same carton; even the two edges of the same blade may differ widely in sharpness. Probably no brand can be relied on to be of

80 RAZOR BLADES

consistently high quality. But CU's tests indicated that the chances of getting good blades were better among the higher rating brands listed below.

Preliminary data on durability indicate that the better single-edge blades last about half as long as the better *Gillette*-type blades, although they cost about the same (except for *Gem*, which lasts as long and costs twice as much). In other words, the cost per shave is about twice as great for most single-edge blades.

The ratings below are based on sharpness tests and shaving tests extending over several months.

All blades except those rated as "Not Acceptable" are listed roughly in order of quality without regard to price. The prices given in the listing below represent the cost per individual razor blade.

GILLETTE-TYPE (DOUBLE-EDGE) RAZOR BLADES

Ref.: CU Reports, March 1938. (Labor notes included.)

BEST BUYS

Cadet (Woolworth's). 2¢.

Blue Diamond (Ardell Razor Blade Corp., NYC; Hearn, NYC). 2.9¢.

Ardell.¹ 3¢.

Marlin (Marlin Firearms Co., New Haven, Conn.). 1¼¢; 20 for 25¢. Blades were found to be somewhat variable, but low in price.

ALSO ACCEPTABLE

Thin-Flex (General Blade Co., NYC). 3.5¢ each in small quantities; 100 for \$3.

Macy (R. H. Macy & Co., NYC). 1.8¢.

Ward's Super-Thin Cat. No.—3523 (Montgomery Ward). 3.5¢ plus postage.

Moredge (J. C. Penney Co.). 1.9¢.

Barbasol (Barbasol Co., Indianapolis). 3¢.

Gillette (Gillette Safety Razor Co., Boston). 5¢. Grossly overpriced.

Tuxedo (Colton Razor Blade Co., Boston). 2¢.

Myco (Myco Razor Blade Co., Pittsburgh). 2¢.

Sears' S-R Cat. No.—6388 (Sears-Roebuck). 0.8¢ plus postage.

¹ Now being sold for 2¢ by Cooperative Distributors, 116 E. 16th St., N.Y.C.

NOT ACCEPTABLE

Darwin (Darwin's, Ltd.). 13¢. Extremely variable, but very good blades sometimes found.

Probak Jr. (Gillette Safety Razor Co.). 2.5¢.

Sears' Sta-Sharp Elite. 1.6¢ plus postage.

Red Cap (Woolworth's). 1¢.

Dublekeen (General Blade Co.). 3¢. Fair initial sharpness, poor durability.

Dart (S. H. Kress stores). 1.7¢. Fair initial sharpness, poor durability.

Cooper (Cooper Products Corp.). 4¢ or 5¢.

GEM-TYPE (SINGLE-EDGE) RAZOR BLADES

Ref.: CU Reports, May 1938.

BEST BUY

Ward's Duro-Edge Cat. No.—3534 (Montgomery Ward). 5 for 10¢ or 10 for 19¢, plus postage.

ALSO ACCEPTABLE

The following three brands gave equally close shaves and all averaged about 1½ shaves per cent of cost:

Star (American Safety Razor Corp., Brooklyn). 4 for 10¢.

Averaged 4 shaves per blade.

Rialto (Woolworth's). 4 for 10¢. Averaged 4 shaves per blade.

Gem (American Safety Razor Corp.). 5 for 27¢. Most durable of all brands tested, but price is high.

The following two brands, both distributed by Woolworth's, gave equally close shaves and were about equally durable. Note the difference in price:

Red Cap (Woolworth's). 20 for 25¢.

Cadet (Woolworth's). 5 for 10¢.

NOT ACCEPTABLE

Sears' Swan. 10 for 19¢ or 20 for 35¢. Initial sharpness consistently poor, durability variable.

Marlin. 15 for 25¢. Extremely variable; three poor blades out of five tested.

SAFETY RAZORS

Before switching to another brand or type of razor, you should check up on your present shaving practices. A change

here may improve your shave more markedly than a change in either razor or blade.

Whenever possible, take time to wet your beard thoroughly with warm water. Wash your face with soap and water and follow this with two or three minutes of vigorous lathering. The application of a hot, wet washcloth or towel before lathering will improve the ease and closeness of shaving, and may also increase somewhat the life of your blade.

Almost as important as all this is the actual technique of shaving. The direction of motion of the razor should be diagonally across the face in such a way as to give a partly slicing stroke.

In the final analysis, the choice of a razor must depend on the individual shaver, his beard, his skin and his shaving habits. If he demands an absolute minimum of time for shaving, he will not find such razors as the *Rolls* or the *Valet Auto-Strop* so satisfactory as those which require no preparation of the blade for use.

In the ratings each razor is considered in terms of its performance with the best blades generally available, and not necessarily with its manufacturer's own brand.

Ref.: CU Reports, November 1938.

ACCEPTABLE

(The order is alphabetical and has no other significance)

Durham-Duplex (Durham Duplex Razor Co., Jersey City, N. J.). 49¢ and up with 6 blades and case. "Hoe-type" model tested; also available in a style like a straight razor. Judged relatively inconvenient. Special double-edged blade.

Durham-Duplex blades (5 for 40¢) gave better than average shaves; *Duro-Edge* blades (5 for 19¢ plus postage), sold by Montgomery Ward, were not quite so good.

Gem Micromatic (American Safety Razor Co., Gem Division, Brooklyn). 25¢ and up. Single-edged blade. Somewhat closer shaves from this razor than from *Gillette*-type but slightly greater tendency to cut the face.

Gem Old-Style (*Eveready* is essentially the same razor). 10¢. Uses the same blades as the *Gem Micromatic* above. It will also take *Eveready* and *Metro* blades which have no notches. On the whole, somewhat less satisfactory than the *Micromatic*.

New Gillette Three-Piece (Gillette Safety Razor Co., Boston). 20¢ and up. The *Gillette* is probably the best choice for the man who wants good shaves at low cost.

ACCEPTABLE—CONT'D

Rolls (Rolls Razor Co., Ltd., Sheffield, England). \$10 and up depending on finish and case. Permanent blade costs \$2.50. Comes in a metal case with built-in mechanism for stropping and honing. The hone is of thin stone, and breaks easily; new ones cost \$1.50. At best it does not give a better shave than the *Gillette* or *Gem* with a good blade.

Schick Injector (Magazine Repeating Razor Co., NYC). Currently sold for 60¢ with 8 blades and a tube of *Lifebuoy* shaving cream. Many users find it the easiest to handle of all razors tested. However, the only blades available are those made by the manufacturer (a magazine of 20 for 75¢ or 12 for 50¢). Blades currently available as refills are inferior. A good blade of this brand will give excellent shaves but cost will be high compared with the *Gillette* type.

Valet Auto-Strop (Auto-Strop Division, Gillette Safety Razor Co., Boston). \$1 with strop and 2 blades. Comes with a razor strop. Takes special blades generally available only in the *Valet* brand at 5¢ each. Economical if the blade is stropped before each shave.

NOT ACCEPTABLE

Enders (Durham Duplex Razor Co.). 50¢ with 6 blades and case. Requires special blades available only under the *Enders* name at 5 for 30¢. All blades tested gave poor shaves when new and had a short life (average, one to two shaves).

ROUGE

Cake rouge is the most widely sold variety, but other types available include powder, liquid, cream and paste. Cake and powder rouges are basically the same. Both are essentially highly colored face powders. Cake rouge contains, in addition, a binding agent to keep it from crumbling. Usually this is a gummy substance such as tragacanth, but starch is sometimes used. People who are especially sensitive to starch, or who have dry skins (starch tends to have a drying effect), should avoid rouges containing starch.

Cream rouge may be either of the cold cream type (greasy) or the vanishing cream (non-greasy) type. The color range in these rouges is rather limited. More common and more satisfactory than the creams are the paste rouges, which are very highly colored and have a hardened petrolatum base.

(Cont'd next page)

They act primarily by coloring the skin itself, whereas cream rouges cover the skin with a colored coating.

This report is concerned only with the economy of cake rouges; from the consumer's point of view, differences in quality are insignificant. Colors in rouge are not standardized, and one must examine the rouge itself, rather than depend upon the color label. Unless you are willing to pay a fancy price for the compact, there is no reason to go further than the 5-&10-cent store to get a satisfactory rouge.

Ref.: *CU Reports* and *Western CU Supplement*, Feb. 1939.

BEST BUY

Elizabeth Post (Elizabeth Post, NYC; distrib., S. H. Kress stores). 10¢. Convenient spring-lock compact with mirror.

ALSO ACCEPTABLE

10¢ BRANDS

The following brands are available in 5-&10-cent stores. They come in thin metal, hinged-top compacts, without mirrors. The metal mold of rouge was usually fastened to the container with glue, which may loosen in time and cause the cake to fall out and crack.

Cashmere Bouquet.

Princess Pat Duo-Tone.

Irresistible Cheek-Lure.

Tangee.

Lady Esther.

Tattoo.

Outdoor Girl.

Varady of Vienna.

The following 10¢ brands were packed in two-piece containers, less convenient than the hinged-top type.

Flame-Glo. Screw-top composition case. May chip or break.

Heather.

20¢ to 40¢ BRANDS

Embassy. 20¢. Contained starch; should not be used by people who are sensitive to starch, or who have dry skin. Convenient compact with mirror.

*La Bonita.*¹ 25¢.

*Po Go.*¹ 40¢. Two-piece box.

50¢ BRANDS

The following rouges are little, if any, larger than the better values in the 10¢ group. The compacts are more sturdily con-

¹ Available in the West only.

ALSO ACCEPTABLE—CONT'D

structed of heavier metal. All of them contain mirrors, and there is generally a spring device to hold the rouge in place.

Armand.

Colonial Dames.

Coty 'Sub Deb' Air Spun.

Elmo.

Harriet Hubbard Ayer. Refill 30¢. Compact has spring lock.

Louise Andre.¹

Max Factor.

Three Flowers.

White Rouge. Powder rouge. Two-piece box. Deceptively packed.

55¢ TO \$1 BRANDS

These compacts are no different in appearance from those in the previous price class. In this price group, spring locks are common. Brands are listed in order of price.

Pompeian. 55¢.

Tussy.¹ 55¢.

Lady Marlow.¹ 59¢.

Rouge Brunette Dorin.¹ 60¢. Two-piece box.

Barbara Gould. 85¢.

Yardley. 85¢.

Dorothy Gray. \$1 (refill 50¢).

Daggett & Ramsdell. \$1 (refill 50¢).

De Kama.¹ \$1.

Doraldina.¹ \$1.

DuBarry (Richard Hudnut). \$1 (refill 50¢).

Helena Rubinstein. \$1 (refill 50¢).

Jaquet.¹ \$1.

Marie Earle.¹ \$1.

Prince Matchabelli. \$1.

OVER \$1

These have no advantage over the cheaper compacts.

Charles of the Ritz. \$1.10 (refill 55¢).

Houbigant. \$1.10.

Elizabeth Arden. \$1.25 (refill 40¢). Contained starch; should not be used by people who are sensitive to starch, or who have dry skins.

¹ Available in the West only.

SANITARY NAPKINS

The listings here are based on tests made in 1937. On the basis of average size, moderate absorption and moisture-proof backing, the following brands rated as "Best Buys": *Veldown*, *Belfair*, *Modess*, *CD*.

The following, in estimated order of merit, were "Also Acceptable": *Lotus*, *Gauzets*, *Kez*, *Venida-Nap*, *Penimaid*, *Venus*, *Kotex Wondersoft*.

Many of these brands can be bought in large "economy" packages, at substantial savings.

Most of the "Not Acceptable" brands were constructed of layers of collucotton (looking like thin crepe paper) and had no wrapping except gauze. Many such napkins are still on the market and are still "Not Acceptable."

TAMPONS

The use of tampons (tightly packed cotton rolls for insertion directly in the vagina) is not without danger. Several physicians and hospitals have reported infections of the uterus and tubes, presumably as a direct consequence of their use. The danger of infection can be reduced by confining their use to the latter part of the period, when the flow is lighter and there is less likelihood that the blood will be dammed up and forced back into the uterus and tubes. Tampons should not be used if they are uncomfortable.

Of the tampons tested in 1937, *Holly-Pax*, *Tampax* and *Cashay* (uncompressed cotton "puff") had satisfactory absorption, and were found less likely to cause irritation. *In view of the potential harm from their use, their listing here should not be considered as signifying approval.*

SHAMPOOS

Avoid shampoos containing: more than 40% alcohol; pine, tar or crude oils; sodium perborate; henna and other dyes, or their extracts. Also avoid "hair powders" and "dry cleaning" shampoos.

Tincture of green soap, which contains about 30% alcohol, is much cheaper than most commercial alcoholic shampoos, and is sometimes helpful in the treatment of dandruff. But it should be used only by people with oily hair as it has a drying effect; stop using at any sign of irritation.

The purity and the amount of the actual soap in a soap shampoo largely determine its merit. Excessive chloride content is undesirable. Coconut and palm-kernel oils are irritating to some skins; their presence in quantity in a shampoo is indicated by an asterisk in the ratings below.

It is, of course, much cheaper to use an ordinary toilet soap, but the liquids are less apt to leave solid soap particles difficult to rinse out of the hair. The liquid shampoos are also more satisfactory for use in lukewarm or cool water than are the ordinary toilet soaps. (See "Toilet Soaps," page 94.)

Sulfonated oil and sulfated alcohol are the two principal types of soapless shampoos. Both types have merit as detergents, but because of their comparative newness and the lack of complete information about them, they are rated as "Also Acceptable" without other recommendation. Sulfated alcohol shampoos are high-priced and their chief advantage is effectiveness in hard water.

Prices given are those prevailing in many retail stores. It is seldom necessary to pay "list" prices for shampoos. Small 1-oz. bottles at 10¢ are generally not economical.

Shampoos not otherwise described are liquid soap shampoos. Soaps with high coconut oil content are preceded by an asterisk ().*

Ref.: *CU Reports*, September 1938. (Contains an extended discussion of shampoos and their use.)

BEST BUYS

CD Liquid Castile (Cooperative Distributors, NYC). 8 fl. oz., 26¢ plus postage.

Palmolive Shampoo (Colgate-Palmolive-Pect, Jersey City, N. J.). 4 fl. oz., 23¢.

Marchand's Castile (Charles Marchand Co., NYC). 4 fl. oz., 29¢.

***Wildroot Instant** (Wildroot Co., Buffalo, N. Y.). 6 fl. oz., 50¢.

ALSO ACCEPTABLE

(In order of increasing cost of dry soap content)

Macy's Olive Oil Shampoo (R. H. Macy & Co., NYC). 1 pt., 37¢.

Macy's Castile Shampoo. 1 pt., 41¢.

(Cont'd next page)

ALSO ACCEPTABLE—CONT'D

- Mary Scott Rowland Liquid Castile** (Mary Scott Rowland, NYC). 6 fl. oz., 50¢.
- Kreml** (R. B. Semler, NYC). 6 fl. oz., 49¢.
- Conti Castile Shampoo** (Conti, NYC). 5 fl. oz., 42¢.
- Laco Castile** (Lockwood-Brackett Co., Boston). 5 fl. oz., 45¢.
- Daggett & Ramsdell Perfect Oil Shampoo** (Daggett & Ramsdell, NYC). 5½ fl. oz., 60¢.
- * **Klenzo Coconut Oil** (United Drug, Boston). 6 fl. oz., 50¢.
- * **Edna Wallace Hopper's Fruity** (Edna Wallace Hopper, NYC). 4 fl. oz., 49¢.
- Canthrox** (H. S. Peterson & Co., Chicago). 3-oz. box, 49¢.
- Mulsified Coconut Oil** (R. L. Watkins Co., NYC). 4 fl. oz., 39¢.
- * **Barbara Gould** (Barbara Gould, NYC). 4 fl. oz., 50¢.
- Packer's Olive Oil Shampoo** (Packer Mfg. Co., Mystic, Conn.). 5 fl. oz., 49¢.
- Woodbury's Liquid Castile** (John H. Woodbury, Cincinnati). 5½ fl. oz., 42¢. Most alkaline of liquid soaps examined. Contained more coconut oil than most "Castile" soaps.
- Van Ess** (Van Ess Laboratories, Chicago). 4 fl. oz., 49¢.
- * **Pinaud Shampoo** (Pinaud, NYC). 4 fl. oz., 39¢.

The following are liquid shampoos of the soapless type, listed here without recommendation. Listings are in order of increasing cost per detergent (cleansing) unit.

SULFATED ALCOHOLS

- Drene and Special Drene for Dry Hair** (Procter & Gamble, Cincinnati). Largest (6-oz.) bottles are the most economical. The company has agreed with the Federal Trade Commission to stop certain misleading representations about the two Drenes. (See *CU Reports*, November 1938.) *Special Drene* is less "drying" than *Drene*.
- Ward's Glisteen** Cat. No.—6611 (Montgomery Ward). 3 fl. oz., 37¢.

SULFONATED OILS

- Venida Oil Shampoo** (Reiser Co., NYC). 8 fl. oz., 45¢; cost rating, 17¢ per unit.
- Marrow's Mar-O-Oil** (J. H. Marrow Mfg. Co., Chicago). 6 fl. oz., 50¢; cost rating, 17¢ per unit.

ACCEPTABLE—CONT'D

Hairtone Soapless Oil (McKesson & Robbins, NYC). 4 fl. oz., 39¢; cost rating, 19¢ per unit.

Admiración Olive Oil Shampoo (Admiración Laboratories, Harrison, N. J.). 4 fl. oz., 44¢; cost rating, 22¢ per unit.

Admiración Foamy Oil. 4 fl. oz., 44¢; cost rating, 31¢ per unit.

ELECTRIC SHAVERS

None of the models tested will give as close a shave as an ordinary safety razor with a good blade, although for many people the results may be satisfactory. No one type seems to be inherently better than all others.

Where possible, electric shavers should be bought on a trial basis, on a money-back guarantee. It may take as much as two or three weeks to make sure that a shaver is satisfactory, in spite of claims that a trial period is unnecessary.

Ref.: *CU Reports*, December 1938.

BEST BUY

Schick Model S (Schick Dry Shaver, Inc., Stamford, Conn.). \$12.50. Ac-dc. Head may be exchanged for No. 10 head for coarse beards, free if less than one year old, otherwise \$3.

ALSO ACCEPTABLE

(In order of preference, price considered)

Rand Shaver Model A (General Shaver Corp., Remington Rand, Bridgeport, Conn.). \$9.50. A-c only. Supplied with 5 V (fine) head; 5 CS (coarse) head supplied with *Remington Close-Shaver* may be better for heavy beards.

Windsor (Windsor Electric Shaver Corp., Glendale, Calif.). \$7.95. A-c only.

Remington Rand Close-Shaver Model 24 (General Shaver Corp.). \$15.75. Ac-dc. Supplied with 5 CS (coarse) head, but 5 V (fine) head supplied with *Rand Shaver* gave better results for some users.

Sunbeam Shavemaster (Chicago Flexible Shaft Co., Chicago). \$15. Ac-dc.

Packard Roto-Shaver (Progress Lectro-Shaver Corp., NYC). \$12.50. Ac-dc. Salt shaker head requires patting technique.

Gem-lectric Model A (American Safety Razor Corp., Brooklyn). \$12.50. Ac-dc.

Gillette Dry Shaver (Gillette Safety Razor Co., Boston). \$20.

(Cont'd next page)

90 ELECTRIC SHAVERS, SHAVING CREAMS

NOT ACCEPTABLE

Hanley AC (Clipshave, Inc.). \$5. A-c only. Head comes off continually while in use; otherwise acceptable. Cord short.

Packard Lectro-Shaver (Progress Lectro-Shaver Corp.). \$7.50 (formerly \$15).

Ingersoll (Ingersoll-Waterbury Co.). \$7.50.

Glide (International Appliance Co.). \$7.50.

Miracle (Miracle Dry Shaver Corp.). \$6.

Sears' Champion Cat. No.—6335, fine head; Cat. No.—6339, coarse head (Sears-Roebuck), \$8.95 plus shipping charges.

Zephyr Model M (Manning Bowman Co.). \$15.

Elgin Kwik-Shave, \$1.50 to \$2; **Life Shaver Model A**, \$2.50; **Croydon**, \$2. These are typical of drugstore and department store "bargains." All had very cheap mechanical construction and gave poor shaves.

SHAVING CREAMS, SOAPS AND LOTIONS

The ratings below are based primarily on economy (exceptions are noted), as tests did not show any appreciable difference in the quality of shave obtained with the various brands.

The lathering-type cream is definitely cheaper to use than the brushless. Cake soaps are cheapest of all.

Cost per ounce is lower in the larger size containers.

Ratings are based on 1936 tests. Prices are current.

Ref.: *CU Reports*, Jan.-Feb. 1937.

LATHERING CREAMS

BEST BUY

Latherall Bay Rum (Woolworth's). 20¢.

ALSO ACCEPTABLE

(In order of increasing cost per ounce of dry soap)

Colgate Rapid-Shave (Colgate-Palmolive-Peet, Jersey City, N. J.). "40¢ tube," 37¢.

Sears' Velvo Bay Rum Cat. No.—4902 (Sears-Roebuck). 19¢, plus postage.

Squibb (E. R. Squibb & Sons, NYC). 23¢.

Lifebuoy (Lever Bros., Cambridge, Mass.). 25¢.

Palmolive (Colgate-Palmolive-Peet). "Giant size tube," 37¢.

ALSO ACCEPTABLE—CONT'D

- Listerine* (Lambert Pharmacal Co., St. Louis). 19¢.
Mennen Lather Shave "Plain" and "Menthol Iced" (Mennen Co., Newark, N. J.). 39¢.
Williams Luxury (J. B. Williams Co., Glastonbury, Conn.). "Double size" tube, 39¢.
Ingram's Concentrated (Bristol-Myers Co., NYC). 29¢.
Vaniva (Vaniva Products Co., NYC). 39¢.

BRUSHLESS CREAMS

BEST BUY

- Latherless Bay Rum* (Woolworth's). 10¢.

ALSO ACCEPTABLE

(In order of increasing cost per ounce of dry soap)

- CD* (Cooperative Distributors, NYC). 8-oz. jar, 27¢ plus postage.
Molle (Mollé Co., Bedford, Ohio). 8-oz. jar, 50¢.
Barbasol (Barbasol Co., Indianapolis). 8-oz. jar, 50¢.
Colgate. "40¢ tube," 37¢.
Palmolive. "Giant 40¢ tube," 37¢.
Burma-Shave (Burma-Vita Co., Minneapolis). 1-lb. jar, 69¢.
Williams Glider. "Double size" tube, 39¢.

TABLET OR CAKE SOAPS

BEST BUYS

- Sears' Supreme* Cat. No.—4915. 8 cakes, 25¢ plus postage.
Williams Barber Bars Cat. No.—4090 (Montgomery Ward). 10 bars, 40¢ plus postage. May be available elsewhere.
Colgate Cup Soap. 5¢ a cake.
Palmolive Shave Tablet. 5¢ a cake.
Williams Mug Shaving Soap. 5¢ a cake.

NOT ACCEPTABLE

- Ward's Tablet* Cat. No.—4248. Contained excessive filler.

WOODEN SHAVING BOWLS

Shaving soap purchased in this type of package costs from 4 to 13 times as much as ordinary cake shaving soap.

(Cont'd next page)

92 SHAVING LOTIONS, SUNBURN PREVENTIVES

NOT ACCEPTABLE

Ward's. Contained excessive filler.

LIQUID SHAVING SOAPS

NOT ACCEPTABLE

Conti Liquid Shave (Conti Products Corp.). Contained free alkali.

AFTER-SHAVE LOTIONS

BEST BUYS

Witch Hazel. 4-oz. bottle, 10¢. Essentially a 14% solution of alcohol in water, with characteristic odor.

Bay Rum. 4-oz. bottle, 10¢. Essentially a 60% solution of alcohol in water, with characteristic odor.

NOT ACCEPTABLE

Preparations such as *Aqua Velva*, *Mennen's Skin Bracer*, *Colgate After-Shave Lotion*, *Palmolive Lotion*, while not harmful, are generally of no value except for the temporary tingling or cooling effect they produce. Considerably more expensive than witch hazel or bay rum.

RAZORLESS SHAVING PREPARATIONS (DEPILATORIES)

Such preparations are almost certain to harm the skin.

NOT ACCEPTABLE

Magic Shaving Powder (Humania Hair & Specialty Mfg. Co.). The seller was ordered by the Federal Trade Commission to cease representing that this product is harmless to the skin.

SUNBURN PREVENTIVES

Ratings give comparative protective strengths as found by exposure tests made on people with various types of skin.

Only a few of the "Acceptable" brands are listed here. For the others see *CU Reports*, July 1938. (But note that due to technical advances in this field, changes in quality may have occurred.)

ACCEPTABLE

The following brands absorb all or nearly all of the rays which are known to cause burns:

Ardena Sun-Pruf Cream (Elizabeth Arden, NYC). \$1 for 3 oz.

Betty Woods Sun Tan Oil (Betty Woods, Hollywood).¹ 49¢ for 5½ oz.

Daggett & Ramsdell Perfect Sun Lotion (Daggett & Ramsdell, NYC). \$1 for 3½ oz.

Kwik Tan (distrib., Nyal Co., Detroit). 39¢ for 1½ oz.

Lehn & Fink Sunburn Preventive (Lehn & Fink, Bloomfield, N. J.). 45¢ for 1 oz.

Mulsitan (R. L. Watkins Co., NYC). 35¢ for 2 oz.

Noil (Norwich Pharmacal Co., Norwich, N. Y.). 59¢ for 3 oz.

Stain hard to remove from cotton and wool. Warning on label against getting in eyes or on clothing.

Quinlan Sunburn Lotion (Kathleen Mary Quinlan, NYC). \$1 for 4 oz.

Squibb Sunburn Cream (Squibb, NYC). 43¢ for 3 oz.

Xpose Sun Tan Cream (Walgreen Co., Chicago). 49¢ for 1½ oz.

Salol Ointment (prepared by druggist). Should cost about 75¢ for 4 oz. Formula: 10 grams Salol; dissolve in least possible amount of liquid petrolatum or albolene; make up to 100 grams of ointment in anhydrous lanolin. Very greasy. Odor objectionable. Recommended only for exceptionally sensitive skins because the lanolin will not wash off readily.

TALCUM POWDER

Finely ground talc is the chief ingredient of good talcum powder. Zinc stearate, boric acid, perfumes and other substances may also be present. Talcum applied to the body helps to protect it from irritation caused by perspiration and the rubbing of clothing.

In applying powders to infants, care should be taken to prevent them from breathing the dust, and the powder can should never be left within the infant's reach. Several deaths have been reported as a result of inhalation of the powder particles.

Unscented and uncolored talcums should be used for infants and children.

¹ Available in the West only.

TOILET SOAPS

Buy good toilet soap as cheaply as you can find it. Soaps are rated below according to quality and to cost on the basis of actual soap contained in them. Good soap is available in all parts of the country at low prices.

Ignore health and beauty claims in soap advertising. Avoid "health" and "hygiene," carbolated, tar and pine oil, "vitamin F" and most other "special" soaps. Transparent soaps offer no advantages, and often contain added glycerine, sugar or other materials of no value in soap. Certain oatmeal soaps were found to irritate or scratch the skin; all oatmeal soaps are rated "Not Acceptable." The name "Castile" is no longer any assurance of quality or composition of the soap; any toilet soap may be labeled "Castile."

Soaps with excess free alkali content are rated as "Not Acceptable." Unlike free alkali, a small amount of free fatty acid in a soap is not irritating to most people. The free fatty acid content is noted for those soaps which contained 5% or more acid.

Even good soaps can irritate some sensitive skins. CU suggests that members who find a particular acceptable ("High Quality" or "Good Quality") soap unsatisfactory try other low-priced acceptable brands until they find one meeting their requirements. It is true, however, that any soap will be irritating to some persons; it may be necessary for them to use other types of cleansing agents. (See article on "Face Creams," page 58.)

Several brands of each of the following companies were tested. To avoid needless repetition in the ratings the full names and addresses are given here only.

Aimcee (Associated Merchandising Corp., NYC).

Colgate (Colgate-Palmolive-Peet Co., Jersey City, N. J.).

Cincinnati (Cincinnati Soap Co., Cincinnati, Ohio).

Haskins (Haskins Bros. & Co., Omaha).

Hewitt (Hewitt Soap Co., Dayton, Ohio).

P&G (Procter & Gamble, Cincinnati, Ohio).

Stanley (John T. Stanley & Co., NYC).

Wrisley (Allen B. Wrisley Co., Chicago).

HIGH QUALITY

(In order of increasing cost per pound of dry soap)

These soaps are of very high purity; they met all Federal specifications for toilet soap.

16¢ TO 25¢ (PER LB. DRY SOAP)

- Evenson's Allwater Soap With Cold Cream* (Evenson).
Co-op Floating Soap.¹
Macy's White Toilet Soap Milled (R. H. Macy, NYC). Do not confuse this with other "special" white milled soaps offered by Macy's.
Hewitt's Easy Lather Coconut Oil Soap (Hewitt).
Beauty Bubbles (Kirkman).
Macy's Palm and Olive Oil Soap (R. H. Macy, NYC).
Kirk's Original Coco Hardwater Castile (P&G).
Perfect Coco Soap (Hewitt).
Sears' L'Adore Cold Cream Soap Cat. No.—4984 (Sears-Roebuck).
Superfine Cold Cream Soap (A&P in Ohio).
Empress Buttermilk Soap (Cincinnati).
Palmaco Complexion Soap (Pana Soap Co.).
Big Bath (Colgate).
Todco Cocoa Almond (Owl Drug Co.).
Aimcee Palm and Olive Oil Soap.
Ward's Montroy Castile Soap Cat. No.—4509 (Montgomery Ward).
Ivory (P&G).
Williams Mt. Horob Palm (J. B. Williams).
Powers White Floating (Powers Merc. Co.).
Coco Foam Hardwater Soap (Cincinnati).
Maxine Complexion Soap (Swift & Co.).
Stanley's Facial Soap (Stanley).
Colgate's White Perfumed Toilet Soap (Colgate).
White King Toilet Soap (Los Angeles Soap Co.).
Co-op Cold Cream Soap.¹

25¢ TO 50¢ (PER LB. DRY SOAP)

- Kirkman's Floating Soap* (Kirkman).
Octagon Toilet Soap (Colgate).
Trilby (Haskins). Contained about 5% free fatty acid.
Co-op Palm and Olive Soap.¹
Miona Palm Complexion Soap (Armour).
SweetHeart Toilet Soap (Manhattan Soap Co.). The quality of this soap has varied greatly during recent years.
Co-op Buttermilk Soap.¹
Island Palm Toilet Soap (Wrisley).

¹ Eastern Co-op Wholesale, Brooklyn; Consumers Co-op Ass'n, North Kansas City, Mo.; Co-op Wholesale, Chicago; and other co-op wholesales.

96 TOILET SOAPS

HIGH QUALITY—CONT'D

Aimcee All Water Soap With Cold Cream.

Aimcee Hardwater.

Stanley's Almond Cocoa Hardwater Soap (Stanley). Contained about 5% free fatty acid.

Gimbel's Palm and Olive Soap (Gimbels, NYC).

Billy B. Van's Pine Tree Soap (Pine Tree Products).

Altman's Cold Cream Soap (B. Altman, NYC).

Walgreen's Cocoanut Oil and Almond Soap (Walgreen Drugstores).

Town and Country (Robinson Co., Los Angeles).

Peoples Cocoanut Oil and Almond Soap (Peoples Drugstores). Contained over 5% free fatty acid.

Palmolive (Colgate).

Bloomingdale's Lanolin Facial Soap (Bloomingdale's, NYC).

Lux (Lever Bros.).

Blue Diamond Pure Olive Oil Castile (Hearns, NYC).

Oliv-ilo (Wrisley).

Gimbel's Hardwater Soap (Gimbels, NYC).

Williams Elder Flower Soap (J. B. Williams).

Nassour's Castile Soap (Nassour Bros.).

Liberty Cocoa Hardwater Castile (Haskins).

Henri Rocheau.

Sears' My Baby's Castile Soap Cat. No.—4997 (Sears-Roebuck).

Cashmere Bouquet (Colgate).

Donaldson's Supreme Lilac Toilet Soap (Donaldson).

50¢ TO \$1.60 (PER LB. DRY SOAP)

Vanity Fair Beauty Shop (Swift & Co.).

Woodbury Pure Castile Soap (John H. Woodbury).

Paislay Lavender Soap (Walgreen Drugstores).

Sayman's Vegetable Wonder Soap (T. M. Sayman).

Physicians' and Surgeons' Soap (Physicians' Supply Co.).

Bocabelli Castile Soap.

Honeysuckle Bath Soap (The Emporium, San Francisco).

D. W. Gibbs' Superfatted Cold Cream Soap Tablet (City Soap Works, London, Eng.).

Gallia (The White House, San Francisco).

Johnson's Baby Soap (Johnson & Johnson).

Bloomingdale's Castile Soap (Bloomingdale's, NYC).

Laco Castile Soap (Laco Products).

HIGH QUALITY—CONT'D

Shulton Gardenia (Shulton, Inc.).

Conti Castile Soap (E. Conti & F.).

Cosray Skin Soap (Los Angeles Soap Co.). Ignore beauty claims about the soap and the "new youth element, Koladol."

Gallia Cold Cream Soap (The White House, San Francisco).

Mazon Soap for Tender Skin (Belmont Laboratories).

GOOD QUALITY

(In order of increasing cost per pound of dry soap)

These soaps were slightly lower in purity than those above. Many of them failed to meet one requirement of the Federal specifications. (All met Federal specifications limiting free alkali.) The following brands are good buys when sold at prices appreciably lower than those listed under "High Quality."

12¢ TO 25¢ (PER LB. DRY SOAP)

Wonder Palm Toilet Soap (S. H. Kress stores).

Blue Label White Floating (Cooperative Distributors).

Gondola White Floating (Woolworth's and other 5-&-10's).

Ward's All-Purpose Soap Cat. No.—4276 (Montgomery Ward).

Ardley White Floating Bath Soap (Hewitt).

Laurel Toilet Soap (Wrisley).

Ward's Cold Cream Facial Soap Cat. No.—4246 (Montgomery Ward).

Colgate's Floating Soap (Colgate).

Stanley's Lemon Oil Soap (Stanley).

Peoples Palm Oil Soap (Peoples Drugstores).

Monte Carlo Bouquet (Cincinnati).

Hardwater Savon Colosse (Colgate).

Sears' Satinette Vitamized Soap (Sears-Roebuck).

Oliv-Palm (Ben Franklin Variety Stores, Tacoma, Wash.).

Hearns Hardwater Soap (Hearns, NYC).

Nemo White Milled (Cooperative Distributors, NYC).

Namm's Lanolin Cold Cream Hardwater Soap (Namm's, Brooklyn).

Peoples Hard Water Soap (Peoples Drugstores).

McCreery Buttermilk Soap (Jas. McCreery, NYC).

Neisner's Palm Oil (Neisner's, Minneapolis).

Altman's Toilet Soap (B. Altman, NYC).

Co-op Cold Cream Toilet Soap (Central Co-op Wholesale, Superior, Wis.).

(Cont'd next page)

98 TOILET SOAPS

GOOD QUALITY—CONT'D

Fine Art Complexion Soap (Armour & Co.).
Arnold Constable's Hard Water Soap (Arnold Constable, NYC).

25¢ TO 50¢ (PER LB. DRY SOAP)

Blue Diamond Palm Oil Soap (Hearns, NYC).
Penney's Cold Cream Hardwater Soap (J. C. Penney).
Camay (P&G).
Perzechella Italian Almond Soap (Perzechella Products).
Beauty Cold Cream Soap (Hewitt).
La Casa Genuine Baby Castile Soap.
Peoples Cold Cream Soap (Peoples Drugstores).
Powers English Lavender Soap (Powers Merc. Co.).
Bloomingdale's Honey and Almond Facial Soap (Bloomingdale's, NYC).
Ward's Bath Soap Cat. No.—4281 (Montgomery Ward).
Stern Bros. Cold Cream Any Water Soap (Stern Bros., NYC).
Bloomingdale's Cold Cream Facial Soap (Bloomingdale's, NYC).
Woodbury Facial Soap (John H. Woodbury).

50¢ TO \$2 (PER LB. DRY SOAP)

Savon Francine.
Wrisley's Superbe (Wrisley).
Bullock's Dry Skin Soap (Bullock's, Los Angeles).
Yardley Old English Lavender Soap (Yardley, London, Eng.).

NOT ACCEPTABLE

The following soaps contained excess free alkali:

Aimcee White Floating Soap.
Baby Dot 100% Pure Olive Oil Castile Soap (Hewitt).
Cameo Castile Soap (Marseilles Castile Soap Works).
Fairy Soap (Hecker Products).
Jap Rose Soap (P&G).

The following soaps contained excessive impurities:

Black and White Skin Soap (Black and White Co.).
Bloomingdale's Buttermilk Facial Soap (Bloomingdale's).
Jaquet Savon Hygienique (Jaquet).
Knickerbocker Hard Water Soap (John Wanamaker).
Lightfoot's All Water Soap (Lightfoot-Schultz Co.).

NOT ACCEPTABLE—CONT'D

Loeser's Hard Water Soap (Fred. Loeser & Co.).
Perfect Castile Soap (Hewitt).
Perfect Palm and Olive Oil Soap (Hewitt).
Plough's Skin Soap (Plough, Inc.).
Whelan's Salon Cream Soap with Vitamin D (Whelan Drugstores).

See text for reasons why the following are "Not Acceptable":

Abraham & Straus Oatmeal Soap (Abraham & Straus).
Aimcee Carbolated Soap.
Aimcee Vitamin F Soap.
Bloomington's Oatmeal Facial Soap (Bloomington's).
Blue Diamond Oatmeal Soap (Hearns).
Calvert's Medical Soap (F. C. Calvert).
Cuticura Soap.
Derbac Medicated Tar Shampoo (Cereal Soaps Co.).
Good Hy-Gene Sanitary Toilet Soap (Wrisley).
Grandpa's Wonder Pine Tar Soap (Grandpa Soap Co.).
Health-Tone Milk of Magnesia Soap (Vitarine Co.).
Jergens Uncle Sam Pine-Tar Health Soap (Jergens Co.).
Jergens Transparent Violet Soap.
Johnson & Johnson Carbolic Soap (Johnson & Johnson).
Klenzo Tar Soap and Klenzo Tar Shampoo Soap (United Drug Co.).
Lady Ann "Health" Soap (Woolworth's).
Lifebuoy Health Soap (Lever Bros.).
Lightfoot's Facial Oatmeal Soap (Lightfoot-Schultz Co.).
Lorie Oatmeal Soap Tablet (Lorie Perfumers).
Lysol Hygienic Soap (Lehn & Fink).
Macy's Carbolated Soap (R. H. Macy).
Macy's Oatmeal Soap.
Nemo Hygienic Soap.
Packer's Tar Soap (Packer Soap Mfg. Co.).
Paislay Gardenia Oatmeal Soap (Walgreen Drugstores).
Peoples Hygienic Soap (Peoples Drugstores).
Peoples Gardenia Oatmeal Complexion Soap.
Rexall Medicated Skin Soap (United Drug Co.).
Sanikleen "Hygiene Soap" (Hewitt).
Sapolio Toilet Soap (Enoch Morgan's Sons).
Stern Bros. Oatmeal Soap (Stern Bros.).
Sun Kist "Health" Soap.
Supreme Hygiene Soap (Hewitt).
Temu Soap for the Skin (made in Estonia).

(Cont'd next page)

100 TOILET SOAPS, TOOTHBRUSHES

NOT ACCEPTABLE—CONT'D

True Blue Pine Tar Soap (Hewitt).
Vigor Hygiene Soap (Cincinnati).
White House All Water Soap (The White House).
White King A Plus Health Soap (Los Angeles Soap Co.).
Wrisley's Oatmeal Soap (Wrisley).
Yardley Fine Oatmeal Soap (Yardley).

TOOTHBRUSHES

A well-designed toothbrush should have a straight handle and a small head, preferably with three rows of bristles and about six tufts to the row. The tufts should be uniform in height, at least half an inch long, and well fastened in the head of the brush. Bristles should be moderately stiff, but not so stiff as to scratch the gums. Brushes meeting these requirements can be bought cheaply. For best service purchase two brushes and use alternately. Let each brush dry 24 hours after use, in a well-ventilated place, preferably not in the same holder with brushes used by others. Unbleached bristles are more durable than the bleached or white.

See *CU Reports*, May 1936 for general discussion of best design and construction of toothbrushes.

BEST BUYS

Ward's DeLuxe Quality Dentist's Style, Cat. No.—3940 (Montgomery Ward). 19¢ plus postage.
Masso (Prophylactic Brush Co., Florence, Mass.). 25¢. Better design than the tufted *Prophylactic*, and half the price.
CD Cat. Nos.—6303;—6306 (Cooperative Distributors, NYC). 30¢ (3 for 85¢) plus postage. Three rows of unbleached bristles, "hard" or "medium," widely spaced. Straight handle.
Takamine Interdental (Takamine Corp., NYC). Two for 39¢ at drugstores. Bamboo handle. Bristles not well anchored, but fairly durable when two brushes are used alternately. Made in Japan.

ALSO ACCEPTABLE

Sears' Approved Professional Style, Cat. No.—5004 (Sears-Roebuck). 29¢ plus postage. Brush head somewhat short.
Fuller Professional (Fuller Brush Co.). 35¢. Unbleached bristles. Well-designed head.
Masso 2 Row (Prophylactic Brush Co.). 35¢. Unbleached bristles but only two rows.

NOT ACCEPTABLE—CONT'D

Dr. Butler's Peridental (John O. Butler Co., Chicago). 50¢.

Only two rows of bristles. Unbleached bristles available.

CD Cat. Nos.—6302;—6305. 26¢. Only two rows of bristles.

Pycops (Pycops, Jersey City). 50¢. Two rows of bristles.

Double Duty "D D" (Rubberset Co., Newark, N. J.). 47¢.

Three rows of bristles. Well-designed head.

Scientific 1005 (S. H. Kress Stores). 10¢. Only two rows of bristles. Made in Japan.

Guest Brush (Prophylactic Brush Co.). 10¢. Bristles short, tufts close together.

Takamine Certified. Two for 21¢ at chain drugstores. Not so well designed as *Takamine DeLuxe*. Bristles short, tufts close together. Apparently identical with *Takamine* and *Takamine Scientific*. Made in Japan.

Ward's Economy Cat. No.—4619. Five for 28¢ plus postage. Bamboo handle. Bristles short, poorly anchored. Japanese.

Tefra (Tefra Co., Indianapolis). Refill type, 25¢; refill, 15¢. Brush head narrow and bristles somewhat soft.

Clean-Be-Tween (Clean-Be-Tween Tooth Brush Co., NYC). Refill type, 60¢; refill, 25¢. Brush head short.

Kleen-rite (Robert E. Miller, NYC; Woolworth's). Refill type, 20¢; refill, 10¢. Brush head short. Bristles soft.

NOT ACCEPTABLE

(Because of unsatisfactory design)

Tek (Johnson & Johnson). 39¢.

Fuller Regular (Fuller Brush Co.). 45¢ or three for 99¢.

Dr. West's (Western Co.). 50¢. New "Miracle Tuft" bristles very durable but may injure gums if applied too vigorously.

Prophylactic Tufted. 50¢.

Dentabest (purchased at Woodworth's). 10¢.

Superfine (purchased at Woolworth's).

Dentatuft (purchased at Woolworth's).

MECHANICAL TOOTHBRUSHES

CU's dental consultants do not recommend the use of any mechanical or electric toothbrush, believing that such instruments involve possible serious hazard to the teeth and gums.

Ref.: CU Reports, December 1937.

NOT ACCEPTABLE

Electro-Massage.

Motodent.

Zerbee.

Drug and Medical.

ALKALIZERS

While prolonged, habitual dosing with alkalies presents a distinct hazard, the occasional use of an alkalizer for an attack of dyspepsia due to alcohol, hurried eating or emotional distress is without danger. Ordinary baking soda will work as well as any of the patented remedies. A large pinch in hot water has a sedative effect on the stomach. If flavor is desired, 10 to 15 drops of essence of peppermint may be added to the water. If an effervescing drink is preferred, the baking soda may be taken in seltzer water.

The list below is composed of products which, either because of their composition or the claims made for them, may be considered as alkalizers. The really active ingredients in many of these products are drugs such as acetanilid, aspirin, bromides, and Glauber's salt.

Ref.: *CU Reports*, October and November 1938.

NOT ACCEPTABLE

Al-Caroid.

Alka-Seltzer.

Alkaline-Seltzer.

Alka Zane.

Bell-Ans.

Bisodol.

Bromo-Seltzer.

Cal-Bis-Ma.

Citrocarbonate.

Papsomax.

Peptans.

Sal Hepatica.

Tums.

ANTISEPTICS

The perfect antiseptic has not yet been discovered. Thorough cleansing with gauze soaked in soap and water will help to remove virulent germs and should be done if it is possible and before the application of any antiseptic. Cuts should be treated by immersing the wounded part in running cold water, cleansing it with toilet soap or tincture of green soap, and applying an antiseptic. The wound should then be covered with sterile gauze bandage or *Band-Aid* (but do not use a wet

dressing saturated with a concentrated antiseptic). Deep or extensive lacerations and bites of animals require the attention of a physician. Tetanus antitoxin may have to be administered by a physician if there is a perforating or deep wound.

Tincture of *Merphenyl Borate* is an excellent antiseptic recently introduced on the market. For application to open wounds it may be diluted with 2 parts of water before using, to avoid irritation. The aqueous solution of *Merphenyl Nitrate* may also be used.

The following iodine solutions are efficient antiseptics: Antiseptic Solution of Iodine, U.S.P., 2% (also called Mild Tincture of Iodine). This is quite irritating largely owing to the alcohol present. Much less irritant is the aqueous Compound Solution of Iodine, U.S.P. Better still is a solution containing iodine 1.85% and sodium iodide 2.2% in distilled water. This can be made by any druggist. A similar product containing 3% iodine is marketed under the name *Isodine* by the Davis Emergency Equipment Co.

One application of any of these is sufficient. Repeated application does not give additional protection, and may cause a burn. Do not use the full strength (7%) U.S.P. Tincture of Iodine.

Metaphen, *Mercresin* and *Merthiolate* are active germicides but are less effective than *Merphenyl Borate*.

Mercurochrome, both in watery and in alcohol-acetone-aqueous solution, and *Hexylresorcinol Solution ST 37* are poor antiseptics.

Pure ethyl or grain alcohol, in a 70% solution, and rubbing alcohol (70%, not 70 proof) are mildly efficient.

Hydrogen peroxide has only slight effectiveness, depending chiefly upon the mechanical cleansing action of the foam.

Lysol is a solution of cresols. While it is an active disinfectant, it is too toxic to use on or in the human body. It should never be used as a douche. It may be employed (in suitable dilution) to disinfect inanimate objects if the odor is not considered too objectionable. For this purpose the non-proprietary Saponated Solution of Cresol, U.S.P. is equally effective and cheaper.

Absorbine Jr., *Pepsodent Antiseptic*, and *Listerine* have comparatively negligible antiseptic properties.

Zonite is a solution which releases chlorine. It is not a satisfactory first aid antiseptic, and in full strength or when

104 ANTISEPTICS, BURNS, COLDS

used repeatedly in diluted form it may cause injury to the tissues.

See also "Mouthwashes," page 75.

Ref.: Series of articles on Antiseptics beginning in April 1939 *CU Reports*.

BURNS

First-degree burns, in which the skin is red but not broken, should be treated by first immersing the injured part in cold water to relieve the pain and then applying a compress soaked in a solution of bicarbonate of soda in water (1 tablespoonful to a half-glass of water). Any oily substance such as cold cream, vaseline or olive oil will also soothe. The tannic acid ointments suggested below also give relief.

Second-degree burns, in which the skin is broken and blistered, must be treated as open wounds, and, if possible, by a physician, because of the danger of infection. First-aid treatment is the same as for first-degree burns except that no oily or greasy substance should be used, since it might carry in germs and, in any case, makes further treatment difficult. There are several useful nongreasy ointments on the market which contain tannic acid and an antiseptic. These include *Amertan* (Eli Lilly & Co.) and *Metanic Jelly* (Abbott Laboratories).

Tannic acid solution has replaced other preparations in the emergency treatment of severe third-degree burns. A physician should treat third-degree burns as quickly as possible. For first-aid prepare a tannic acid solution just before use by dissolving 4 teaspoonfuls of the powder in a glass of water. Sterile gauze soaked in this solution should be laid over the burned area. In the absence of tannic acid powder, use cool, very strong tea (2 tablespoonfuls of tea steeped for 15 minutes in a cup of boiling water).

Extensive burns should, if possible, be treated in a hospital.

COLDS

The common cold is generally considered to be caused by an ultramicroscopic virus; there is not yet available any effective means of prevention or cure. All "cold remedies" must be appraised in the light of this. The best prophylactic measure known is simply to avoid people with colds.

"Cold vaccines" are suspensions of dead bacteria. Injections

of them by physicians seem to be effective in a small percentage of cases in reducing the severity and duration of colds but usually not their frequency. Cold vaccines taken by mouth are probably worthless.

Aside from local discomfort, a cold is a potentially serious ailment, capable of causing many complications; it should therefore be treated by rest in bed for a day or so. When there is fever, rest in bed is essential. All other remedies can at best only relieve the local discomfort. Most remedies are worthless, some are injurious, a few are dangerous.

If rest in bed is necessary for the average common cold, it is imperative when the patient is a child or an adult suffering from a chronic ailment such as diabetes, rheumatism, &c. In the latter cases, a physician's advice may make the difference between a short acute infection and a prolonged complicated, serious infection.

Pills—The most widely used pill is aspirin. *Bayer's* particularly has been extensively advertised for this purpose. Actually, aspirin is of value only in diminishing the aches and pains that sometimes accompany colds, and for this purpose, although aspirin causes reactions in some people (see "Pain," page 117), it is safer to use than are many of the other analgesics (pain relievers). *Grove's Laxative Bromo Quinine* contains acetanilid—a substance which lowers fevers and which can produce serious reactions, especially if taken repeatedly or over long periods (see *CU Reports*, April 1939). A number of deaths have been traced to the use of acetanilid. Cold pills often contain aspirin, acetanilid, or other related drugs, sometimes in combination with laxatives. The most helpful drug remedy is codeine or codeine and papaverine. These can be prescribed only by a physician.

Nose Drops—There is a serious hazard connected with the use of nose drops. Those containing mineral oil have been shown to be a contributing factor in numerous recorded cases of lipoid pneumonia resulting in the death of many children. See *CU Reports* for December 1936, March and May 1937 and *Western CU Supplement*, February 1939, for a full discussion of this subject.

Some of the nose-drop preparations give temporary relief, but none of them will either prevent a cold or shorten its duration. In fact, the indiscriminate use of nasal oils, solutions and jellies may favor the spread of infection to the sinuses and ears.

Neosynephrin 1½% or *ephedrine* 1% in watery solutions

are safest for relieving nasal congestion. 2 or 3 drops every 3 or 4 hours may be instilled. The effect, however, is brief and may be followed by increased congestion. Neosynephrin or ephedrine jellies are the most effective of the jellies. Forceful sniffing of the jelly must be avoided to prevent spread of infection to ears and sinuses.

Silver preparations such as argyrol or neosilvol do not relieve colds. They are frequently destructive to tissue and if used too often may cause argyria (a permanent blue discoloration of the skin and other tissues).

Inhalants—Benzedrine is the most recently developed of the inhalant drugs. While it is effective in shrinking the mucous membrane of the nose, it can cause sleeplessness and other toxic symptoms unless the directions on the tube are scrupulously followed.

Mouthwashes—See page 75.

Ointments—Neither *Vick's Vaporub* nor any other ointment applied to the skin can prevent or cure colds. Such ointments cannot "penetrate the skin." They may diminish a sense of soreness in the chest.

Alkalizers—The notion that colds are either caused or accompanied by increased acidity has led to the recommendation of various alkalies for their relief. Increased acidity of the blood and tissues occurs only in serious conditions such as diabetes and nephritis. Alkalies have no influence whatever on the course of a cold.

Vitamins—If the diet is adequate, vitamin preparations will not help in the prevention or treatment of colds.

Laxatives—Since laxatives have been advertised for almost every other purpose, it is not surprising that they should be applied to the treatment of colds. Clinical studies have shown that they have no value for this purpose, either before or during a cold.

Miscellaneous Treatments—Soaps, tonics, special foods and sun lamps have been advertised for the prevention or the cure of colds. They are worthless for this purpose.

Ref.: *CU Reports*, Jan.-Feb. 1937; *Western CU Supplement*, February 1939.

ACCEPTABLE

For temporary relief of nasal congestion.

Neosynephrin Solution
1/4%.

Benzedrine Inhalant.
Ephedrine Solution 1%.

NOT ACCEPTABLE

The products listed below are a few of the better-known ones offered for the treatment of colds. They are rated "Not Acceptable" on the basis of their advertising claims, which are misleading, and their effectiveness in curing or preventing a cold, which is nil.

PILLS

Bayer Aspirin.

Grove's Laxative Bromo Quinine.

NOSE DROPS

Campho Lyptus.

Hill's Nose Drops.

Mistol.

Pineoleum.

Rexall Nasal Spray.

Silver-Col.

Vick's Va-Tro-Nol.

INHALANTS

Thermohale.

Vapex.

Venida Menthokerchief.

OINTMENTS

Mentholatum.

Musterole.

Penetro.

Vick's Vaporub.

ALKALIZERS

Alka-Seltzer.

Alka Zane.

Citrocarbonate.

Sal Hepatica.

LAXATIVES

Ex-Lax.

Sal Hepatica.

Grove's Laxative Bromo Quinine.

CONSTIPATION

An extended series of articles on constipation and its treatment appeared in *CU Reports*, May through November 1937. A very brief digest of the series is offered here.

A bowel movement every day is *not* essential to good health. Many people in perfect health have an evacuation no oftener than once every two or three days without the slightest ill effects.

If true constipation actually exists and evacuation is difficult, incomplete, or painful, a rational treatment can be

prescribed only after careful examination has determined whether the condition is organic or functional. Constipation caused by ulcers, inflammation, tumors or other organic diseases can be relieved only by curing the underlying disorder. Medical investigation is particularly important with those adults who, after having had regular and satisfactory evacuations, begin to experience a persistent change in the character and frequency of bowel movement.

Laxatives for the relief of chronic constipation should be used only as a crutch until good habits replace bad ones. For some people, an effective and harmless laxative consists of salt water prepared by dissolving $\frac{1}{2}$ teaspoonful of table salt to each glass of water. Two or three glasses may be taken every morning before breakfast.

When the stools are hard and small and straining is necessary, a "lubricating" mineral oil may be helpful. Not more than one to two tablespoonfuls need be taken, and only at night before retiring. Taken in this way there will be a minimum of interference with digestion and absorption of food.

Agar is the least harmful of all the bulk-producing laxatives. *Cascara sagrada* may also be used to advantage. After a few weeks the dose should be reduced to the smallest amount necessary for a satisfactory evacuation. Then gradually lengthen the interval between doses until use is no longer necessary.

Enemas, like laxatives, should be used only as transitory aids in the re-establishment of good function. The least irritating solution is warm salt water—one teaspoonful of salt to a pint of water.

Children should rarely be given laxatives or cathartics. Chronic constipation in children is usually a personality problem and may require the services of a competent physician or child psychiatrist. When there is abdominal pain in child or adult, laxatives and enemas must be avoided, since the pain may be a symptom of acute appendicitis. Taking a laxative may cause rupture of the appendix and possibly death. Habitual use of laxatives and "roughage" is also frequently responsible for hemorrhoids.

Temporary constipation in children requires no treatment. In adults occasional constipation will cause no harm, but if a mild laxative is desired it may be chosen from the "Acceptable" list which follows.

Ref.: "Our Common Ailment," by Harold Aaron, M.D. Special Edition for CU members only, \$1.

ACCEPTABLE

Doses are for adults.

For temporary constipation:

Milk of Magnesia, U.S.P. 1 to 2 tablespoonfuls.

Aromatic Fluid Extract of Cascara Sagrada, U.S.P. 1 to 2 teaspoonfuls.

Seidlitz Powders, U.S.P. 1 or 2 pairs of powders.

Effervescent Sodium Phosphate, U.S.P. 1 tablespoonful.

For habitual constipation:

Heavy Liquid Petrolatum (mineral oil), U.S.P. 1 to 2 tablespoonfuls.

Emulsion of Liquid Petrolatum, U.S.P. 2-3 tablespoonfuls.

Agar-agar or agar granules. 1-2 heaping teaspoonfuls.

NOT ACCEPTABLE

BULK-PRODUCING, OTHER THAN AGAR

Bran-O-Lax¹

Carasyl

Edro-lax

Hood-lax

Inner-Clean

Kiomin

Psyllium Seed

Rosdex

Saraha

Serutan

Swiss-Kriss

MINERAL OIL EMULSIONS

Haley's M-O

Petro-Syllium

SALINE CATHARTICS

Adler-i-ka¹

Crazy Crystals

Eno Salts

Fruitola

Health Crystals

Jad Salts

Kruschen Salts

Occy-Crystine

Pluto Water

Sal Hepatica

Sleepy Brand Salts

Texas Mineral Crystals

Warm Springs Crystal

Compound

Wonder Crystals

CASCARA SAGRADA

Boals-Rolls¹

Nature's Remedy (NR)¹

Petrolagar with Cascara

¹ These preparations are listed under more than one heading, because they contain several active ingredients.

110 CONSTIPATION, COUGHS

NOT ACCEPTABLE—CONT'D

ALOE^s

Because of irritant effects:

Adler-i-ka¹	Grove's Laxative Bromo
Alophen	Quinine
Carter's Little Liver Pills	Lapactic Pills
Dr. Edwards Olive Tablets	Nature's Remedy (NR)¹
Gly-Cas	Pursang Laxative Pills

SENNA

Because of irritant effects:

Boals-Rolls¹	Compound Licorice
Caldwell's Syrup Pepsin	Powder
Castoria	Herb Teas
	Inner-Clean

PHENOLPHTHALEIN

Because it is an irritant and frequently responsible for marked stomach and intestinal disturbances and because it may be responsible, in sensitive people, for ulcers of the mouth and skin eruptions:

Agarol	Feen-A-Mint	Petrolagar with Phenol-
Asper Lax	Hints	phthalein
Boals-Rolls¹	Hylax	Phenobilin
Bran-O-Lax¹	Norol-Agar	Phenolax
Cascarets	Nutlax	Prunoids
Dilaxin	PDQ Chewing	Regs
Ex-Lax	Laxative	Veracolate

COUGHS

A cough may be a symptom of any one of 35 or more ailments. In infants and children and in adults with chronic ailments, a cough should be considered a serious matter requiring treatment by a physician. Any cough accompanied by fever, pain in the chest or indigestion, or one that lasts longer than three weeks, also calls for medical examination. A cough accompanying or following a common cold will usually subside in two or three weeks.

A short, dry cough such as sometimes accompanies a cold may be relieved by frequent, hot drinks of milk, tea or lemonade. Any hot liquid will soothe the mucous membrane and

¹ These preparations are listed under more than one heading, because they contain several active ingredients.

promote secretion. Sucking cough drops or any other candy drops may also be helpful, not because of any medication they may contain but because the sugar of which they are made stimulates secretion and soothes the mucous membrane.

Steam, inhaled at intervals (for periods of about five minutes every two hours or so) is also a useful method of easing an acute cough. Tincture of Benzoin Compound, U.S.P.—1 teaspoonful to one quart of water—makes the steam somewhat more helpful.

NOT ACCEPTABLE

Buckley's Mixture.

Creomulsion.

Pertussin.

Pisos.

Rems.

Smith Brothers Cough

Syrup.

Syrup Cocillanu.

Syrup of White Pine.

Zymole Cough Syrup.

EYES

There is no necessity for washing healthy eyes regularly. If an eyewash is desired, a solution of boric acid (1 teaspoonful dissolved in a glass of boiling water and allowed to cool) is as satisfactory as any of the high-priced eyewashes sold in drugstores. An eye cup may be used, care being taken to sterilize it frequently in boiling water.

One can treat a sty at home by applying to the eye a small cloth or thick gauze wrung out in hot boric acid solution (1 teaspoonful to 1 glass of boiled water). If the collection of pus does not spontaneously discharge itself, medical aid should be sought. Recurring sties require the attention of a physician.

FEET

Improper care of the feet is responsible for many disturbances in other parts of the body. Numerous instances of so-called "arthritis" of the bones, hips and sacro-iliac joints, and of spinal disease have been found to be caused by foot disorders. (See page 144 for a discussion of shoes.)

Bunions can be cured only by operation. Advertised remedies—pads and specially built shoes—may give temporary relief if properly fitted and applied, but improperly fitted ones are worthless and may damage the foot.

(Cont'd next page)

Hard Corns are produced by the pressure of badly fitted shoes. It is essential first to get a properly fitting shoe and thus ease the pressure. Then use the following treatment: soak the feet in warm water about 15 minutes; dry thoroughly, and apply to the surface of the corn 1 or 2 drops of 10% salicylic acid in collodion (proprietary corn removers are usually of similar composition); wear a corn plaster over this. If the corn does not lift out after a few days of such treatment, a podiatrist or physician should be consulted. Because of the risk of infection, corns should never be removed by cutting.

Soft Corns are frequently associated with "athlete's foot" infections and do not, as a rule, yield to simple home methods. The services of a physician are generally necessary.

Perspiring Feet—Perspiration may be diminished by washing the feet about twice daily and liberally sprinkling them, especially between the toes, with a dusting powder (kaolin or zinc stearate powder). In severe cases, the feet may be swabbed with a 15% to 25% solution of aluminum chloride in water which should be allowed to dry before hose are put on, as it may rot the fabric. Sometimes the condition is due to a disturbance in circulation and it may be advantageous to seek medical help.

"Athlete's Foot" is a ringworm infection on the skin of the feet. It is caused by a microscopic fungus, and is transmissible from one person to another.

In many schools and colleges infections have been prevented, to a large extent, by requiring pupils to step into a freshly prepared 1% solution of sodium hypochlorite (changed every 3 days) on their way to and from the swimming pool and gymnasium. Cleanliness of the feet and dryness, particularly between the toes, is essential to any treatment. For early, mild cases where there is slight scaling and oozing, dabbing the toes twice daily with cotton soaked in Lugol's solution or tincture of *Merphenyl Borate* may help. These solutions may cause burns on sensitive skins. Chronic and severe cases and those in which the toenails and fingernails are involved require medical care.

Treatment should be kept up for some time after cure has apparently been obtained, since the organisms will often stay in the skin cells and cause another outbreak. It is essential that socks which come into contact with the infected areas be sterilized by boiling, so that the wearer does not re-infect himself. The inside of shoes may be disinfected with a for-

maldehyde solution (1 part 40% formaldehyde to 5 parts water). After this treatment, they should be aired well for at least a day before use.

NOT ACCEPTABLE

The following and other commercial preparations advertised for the cure of "athlete's foot" either are ineffective or may cause considerable irritation: *Absorbine Jr.*; *Black & White Ointment*; *Dr. Scholl's Solvex*; *Listerine*; *Pepsodent Antiseptic*.

"FEMININE HYGIENE"

No commercial preparations—liquids, powders, foams, tablets, suppositories or jellies—can by themselves be relied upon for the "feminine hygiene" (meaning, actually, contraception) for which they are advertised. Many of them, such as *Lysol* and *Zonite*, are injurious; the former is known to have caused several deaths.

There are, furthermore, no medical preparations which in themselves have any value in the treatment of leucorrhea (a white vaginal discharge). Leucorrhea is not a disease, but a symptom, the cause of which must be known before any effective form of treatment can be prescribed.

The douche preparations advertised for their "cleansing" value should certainly not be bought. Regular washing of the vaginal canal is not only unnecessary, but may be harmful. A douche should be employed only when advised by a physician for the treatment of a specific condition.

"Daintiness" depends on sufficiently frequent bathing and clean clothing, not on douching.

For a fuller discussion of this subject see *CU Special Report on Prophylactics and Feminine Hygiene*. 25¢.

INDIGESTION

The term indigestion covers many symptoms which have different causes and therefore require different treatment.

Indigestion may be caused by organic disease of some part of the digestive tract (stomach ulcer, appendicitis, disease of the gall bladder) or by some disease entirely outside the digestive tract (scarlet fever, cold, heart disease, tubercu-

114 INDIGESTION, INSOMNIA

losis). A temporary poisoning, such as may result from excessive quantities of alcohol, may be another cause.

Laxatives and cathartics should never be taken for an attack of "acute indigestion." The attack may be due to acute appendicitis, in which case a laxative or cathartic could cause rupture of the appendix and resultant peritonitis.

See "Constipation" (page 107).

"Acid indigestion" (see "Alkalizers," page 102).

Ref.: "Our Common Ailment," by Dr. Harold Aaron (see page 6 for ordering).

NOT ACCEPTABLE

The following products cannot be relied upon in cases of indigestion, and in some cases their repeated use may be harmful:

Alka-Seltzer.

Alka Zane.

Bell-Ans.

Bisodol.

Bromo-Seltzer.

Citrocarbonate.

Crotzer's Bromo Mint.

Phillips' Milk of Magnesia.

Phillips' Milk of Magnesia

Tablets.

Sal Hepatica.

Tums.

INSOMNIA

Insomnia (sleeplessness) accompanies many ailments. Chronic maladies such as arteriosclerosis (hardening of the arteries) and heart disease cause insomnia because not enough blood is carried to the brain. Toxic insomnia results from excessive indulgence in or unusual sensitivity to coffee, alcohol, or tobacco. Coffee, tea, or *Coca-Cola* should not be drunk by those readily affected, for at least four or five hours before going to bed.

Insomnia due to physical illness responds to treatment of the underlying disease. Temporary nervous insomnia is relieved by physical and mental relaxation. A warm bath or a hot drink may have a sedative effect and promote sleep. *Ovaltine* and other food nostrums are of value only as hot drinks, and money spent on them is largely wasted. Drugs to induce sleep should never be taken without the advice of a physician, because, although they are often effective, they may also be habit-forming or poisonous.

MEDICINE CABINET

The following items should be sufficient for the average household medicine chest:

One of the following antiseptics:

Merphenyl Borate tincture 1:500; mild tincture of iodine, 2%, kept in a glass- or rubber-stopped 1-oz. bottle for not more than 1 year. Alternatives are an aqueous solution containing iodine 1.85% and sodium iodide 2.2% or compound solution of iodine, U.S.P. (Lugol's solution).

Boric acid powder. Make up solution as needed (1 teaspoonful to a glass of boiled water).

Rubbing alcohol.

Tannic acid powder, 4 oz.

Petrolatum (*Vaseline*), 1 jar.

Baking soda (cheapest at grocer).

Mineral oil. (Liquid petrolatum, U.S.P.).

Aspirin.

Aromatic spirits of ammonia, 1 oz. Keep not over 1 year.*

Syrup of ipecac.

Clinical thermometer.

Hot water bottle with syringe attachments.

First-aid dressings:

Adhesive bandage (such as *Band-Aid*).

Gauze bandage.

Sterile gauze dressing.

Adhesive tape.

Absorbent cotton.

Scissors.

Tweezers.

Dental floss.

The medicine chest should be kept out of the reach of children. All bottles in it should be tightly stoppered and carefully labeled, not only as to contents, but as to use and dosage of the medicines they contain. The chest should be given a frequent and thorough going-over. Old prescriptions should be discarded promptly when their use is discontinued.

The following references are both informative and reliable on the subject of the medicine chest and its contents:

"The Home Medicine Cabinet," by Rachel Lynn Palmer; Consumers' Council Division of the Agricultural Adjustment Administration, Washington, D. C. Free.

(Cont'd next page)

"The Family Medicine Chest" (except for the inclusion of *Mercurochrome* and castor oil in list of suggested supplies), by Mary E. Stebbins; Missouri Agricultural Exp. Service Circular No. 230, University of Missouri, Columbia, Mo. Free.

OBESITY CURES

Stoutness is considered a predisposing factor to many serious illnesses. But the products offered under the general heading of obesity cures represent no remedy for the condition. Some are effective, but are invariably dangerous to use; others are of themselves without effect but depend upon a rigid diet which is prescribed with them to accomplish their end.

Obesity is a condition which requires competent medical treatment. The physician can, after physical examination, prescribe a routine of exercise and diet that will generally reduce weight and not leave the patient exhausted and subject continuously to a starved sensation or a prey to other diseases. The success of such treatment, however, requires the full cooperation of the patient. Many persons unwilling to go through with long and rigid treatment turn to dangerous patent medicines, hoping for an easy cure.

NOT ACCEPTABLE

LAXATIVES

Bon Kora.
Figuroids.

Jad Salts.
Kruschen Salts.

Slends Reducing Gum.

THYROID COMPOUNDS

Faid.
Marmola.

Re-Duce-Oids.
Rengo Fruit.

Silph Chewing Gum.

DINITROPHENOL AND DINITROCRESOL

All preparations containing these drugs are extremely dangerous and should be avoided.

FOOD NOSTRUMS

Ry-Krisp.
Stardom's Hollywood Diet.

Sylvette.
Welch Grape Juice.

NOT ACCEPTABLE—CONT'D

EXTERNAL APPLICATIONS

*Arden's Slenderline
Reducer.*

*Fayro.
Lesser Slim Figure Bath.*

Reducing belts and brassieres.

PAIN

Pain is a symptom of a disease or a disorder. *Effective relief of pain demands treatment of the ailment causing it.*

Simple measures for the relief of pain which may be applied at home include, first of all, rest. Hot or cold applications and massage are also helpful (see "Physical Therapy," page 120).

Of the drugs advertised for the relief of pain, aspirin is probably the safest. There are, however, some people hypersensitive to aspirin (as indicated by nausea, vomiting, heartburn, skin eruptions, hives, swelling of the lips and face, and other symptoms). Any of these symptoms after aspirin has been taken indicate that its use must be discontinued at once. Persons suffering from asthma, hayfever, hives, or eczema should take aspirin with caution and only when absolutely necessary, since its use has been reported to have caused severe and even fatal reaction. Such persons should take no more than one tablet at a time, and guard against reaction symptoms.

For the average person, one or two 5-grain tablets every three or four hours may have a relieving effect. Larger doses should be taken only at the direction of a physician.

Almost all brands of aspirin are alike. The cheap varieties are as effective as the expensive, provided they meet U.S.P. specifications for strength and purity. There is no additional value in the "quick solubility" or disintegration feature advertised by some brands.

Analgesic (pain-killing) compounds often contain aminopyrine, acetanilid, acetophenetidin, cinchophen, or similar drugs. Many persons are sensitive to these drugs, and severe reactions and even death have resulted from their use. (See *CU Reports*, April 1937 and April 1939.) They should never be used except upon a physician's prescription. And a physician should, of course, be consulted in the event of any severe or protracted pain. Aminopyrine is responsible for a blood disease known as agranulocytosis, which has caused hundreds of deaths.

Federal regulations which have recently gone into effect limit the shipment in interstate commerce of proprietary remedies containing aminopyrine. It is likely, therefore, that

new shipments of most of the products listed will not contain this ingredient. This does not mean, however, that a drug which is safe for self-medication will necessarily be substituted. Since old stocks containing aminopyrine will not be exhausted for some time, the list below is included.

Dysmenorrhea—Mild menstrual pains are frequently relieved by rest, a warm bath (see page 120), and application of a hot-water bottle or ice bag (whichever proves better) to the lower abdomen. One or two aspirin tablets every two to three hours may be helpful. Avoid aminopyrine. Agranulocytosis is more likely to occur if aminopyrine is taken just before or during the period than if it is taken at other times.

Earache requires immediate medical care, since it may be a symptom of pus in the middle ear or of mastoiditis. Considerable relief from pain may often be obtained from a hot-water bottle or a heat lamp (see page 120). No ear drops should ever be used unless prescribed.

Headache is a symptom of many diseases, some of them serious. Occasional headaches, due to temporary conditions such as fatigue or a "cold," may be relieved somewhat with aspirin—1 or 2 tablets every 4 hours. An ice cap placed on the head may be helpful, but rest is the best treatment.

NOT ACCEPTABLE CONTAINED ACETANILID OR SIMILAR COMPOUNDS:

<i>A.D.S. Cold and Grippe Tablets.</i>	<i>Esterin.</i>
<i>Ammonal Tablets.</i>	<i>Felsol.</i>
<i>Anacin.</i>	<i>Feminex.</i>
<i>Analgia.</i>	<i>Grove's Laxative Bromo Quinine.</i>
<i>B-C for Headaches and Neuralgia.</i>	<i>Koch's Cold and Grippe Tablets.</i>
<i>Beck's Little Wonder Powders.</i>	<i>Kohler's Antidote.</i>
<i>Bromo-Seltzer.</i>	<i>Kurb.</i>
<i>Capudine.</i>	<i>Migro Powder.</i>
<i>Cascara Cold Breakers.</i>	<i>Dr. Miles Nervine.</i>
<i>Cephalgine.</i>	<i>Nuran Tablets.</i>
<i>Curry's Headache Powders.</i>	<i>Stanback Headache Powders.</i>
<i>Darol.</i>	<i>Stark's Headache Powders.</i>
<i>Dr. Fellows' Headache Powders.</i>	<i>Taldan.</i>
	<i>Yum for Headache.</i>

NOT ACCEPTABLE—CONT'D**CONTAINED CINCHOPHEN:**

Atophan Tablets.
Farastan.

Renton's Hydrocine.
Weldona.

CONTAINED AMINOPYRINE:

Allonal.
Amidocol.
Amidol.
Amido-Neonal.
Amidos.
Amidos Compound.
Amidotol Compound.
Amidoval.
Amino-Barb.
Amino-Barbital.
Am-Phen-Al.
Ampydin.
Amylofene Compound.
Amytal Compound.
Baramid Compound.
Baramid No. 1 and No. 2.
Barbidon.
Cibalgine.
Compral.
Ethalyl Compound.
Eu Med.

Cardan.
Gynalgos.
Hexin.
Kalma.
Lumodrin.
Lydia Pinkham's Tablets.
Midol.
Mylin.
Neonal Compound.
Neurodyne.
Nod.
Optalidon.
Peralga.
Phenamidol.
Phen-Amy-Caps.
Phenobarbaine.
Pheno Barbidon.
Prophenal Compound.
Pyramidon.
Pyraminal.
Seequit.

Yeast-Vite.

Toothache requires immediate dental attention, but until this is available some relief can be obtained. A thick paste of bicarbonate of soda pressed into a cavity, if it is accessible, may give considerable relief. If not, a small wad of absorbent cotton soaked in N.F. (National Formulary) *Toothache Drops*, may be tried. A hot-water bottle may also be applied to the cheek, and one or two aspirin tablets taken.

Toothache waxes and drops commonly contain a corrosive poison such as phenol (carbolic acid). At least one death from the use of such a product has been reported.

NOT ACCEPTABLE

Poloris Dental Poultice (Poloris Co.). Rejected by American Dental Ass'n as "irrational, unscientific, needlessly complex, ineffective and expensive." Mainly ground hops.

PHYSICAL THERAPY

Physical therapy is of value in many ailments, acute and chronic. But expensive electrical and light equipment is useful and safe only under expert medical supervision. Massage, exercises, water, air, heat and sunlight are other means of physical therapy which can be effectively used.

INFRA-RED RAYS AND HEAT

Infra-red rays are nothing more nor less than heat rays. In the devices used, these may or may not be accompanied by light. Heat may be obtained as well from a hot-water bottle, hot wet packs, poultices and hot-water baths. The source used depends upon whether local or general application is desired.

Local applications of heat are valuable in the treatment of arthritis, backache, bruises, and sprains of joints or muscles. There are no special virtues in expensive "infra-red machines." An inexpensive heat lamp is good enough. And a hot-water bottle or electric pad is an effective source of heat for direct application.

DIATHERMY

The heat produced in the use of diathermy is generated within the body by the application of high-frequency electric current. Because of the depth of penetration, it is used by physicians for treatment of pain and certain other conditions in deep-seated structures of the body. The application of diathermy has many inherent dangers, and it must never be used for self-treatment. *Do not buy or rent diathermy apparatus for use at home.*

ULTRA-VIOLET RAYS

The number of ailments for which ultra-violet radiation may be used with benefit is not nearly so great as is frequently supposed. It is definitely known that ultra-violet ray exposure will *not* (1) permanently lower blood pressure, (2) prevent or relieve colds, (3) cure anemia, (4) prevent or cure baldness, (5) increase mental activity.

Ultra-violet may be beneficial for the cure and prevention of rickets, the treatment of some particular types of tuberculosis, and the healing of sluggish wounds. *It must, however, be applied under medical supervision.* Even very short expo-

sure to ultra-violet rays may produce, in some people, severe burns and conjunctivitis (inflammation of the eye). Repeated exposure may lead to degenerative changes or even to cancer of the skin. Kidney damage has also been reported following excessive exposure. Uncontrolled ultra-violet radiation is particularly dangerous in pulmonary tuberculosis, certain skin disorders, and in most infections accompanied by fever.

Since home treatment of rickets should not be attempted by the layman, sun lamps which are safe to use at home should be considered useful only in tanning the skin. And since it is not known that a tanned skin is any healthier than an untanned one, the ultimate value of such lamps seems to depend on whether one finds a tanned skin attractive enough to warrant spending the money necessary to buy a good lamp.

The Council on Physical Therapy of American Medical Ass'n has accepted the following lamps for home use:

Eveready Table Model Carbon Arc Lamp, Type M-1 (National Carbon Co., Cleveland, Ohio).

Westinghouse Mazda Sunlight Lamps, Types S-1 and S-2 (Westinghouse Lamp Co., NYC).

General Electric Sunlamps, Type S-1, Models BM3, BM6 and BM7 (General Electric Co., Cambridge, Mass.).

SKIN DISORDERS

ACNE

Acne is a skin disorder occurring chiefly in adolescence. Its exact cause is not known. Mild cases may be benefited by frequent use of hot water and mild soap and application twice daily of 95% alcohol or *Lotio Alba* (obtainable at any drugstore). Severe cases require the care of a dermatologist.

"ATHLETE'S FOOT"

See page 112.

ECZEMA

The term "eczema" has been used to cover a multitude of skin disorders. It is actually a disease of the skin having many causes and manifesting itself in the form of red, itching and discharging sores, spread over large areas.

The condition is a serious one, and in most cases can be

122 SKIN DISORDERS, SORE THROAT

successfully treated only by a competent dermatologist. Eczema may be aggravated or made chronic by wrong treatment, especially when patent medicines constitute the treatment. For temporary relief of the itching, a solution of boric acid or calamine lotion may be dabbed on.

POISON IVY AND POISON OAK

The best measure for the prevention of ivy poisoning consists in learning to recognize the plant, so that it can be avoided. In the early Fall, when the danger of poisoning is greatest, the poison-ivy vine has characteristic glossy, dark green leaves with three leaflets, white berries and reddish stems. Poison oak is very similar to poison ivy.

Use of a yellow laundry soap (e.g. *Fels-Naptha* or *Kirkman's Borax*) under a shower immediately after exposure will frequently remove the poison before inflammation sets in. Ordinary toilet soap is less effective. If the poison has penetrated the skin, the application of calamine lotion or wet boric acid dressings will relieve the itching somewhat. Some doctors have had success with the use of hypodermic injections of poison-ivy extract, for both prevention and treatment.

Ref.: *CU Reports*, June 1937; *Western CU Supplement*, August 1938.

SKIN DISORDERS ACNE SORE THROAT

A child who has a sore throat should, whenever possible, be attended by a physician, since diphtheria, septic sore throat, scarlet fever, rheumatic fever, or some other serious infection may be the cause of it.

The pain of an inflamed throat can be relieved considerably by taking hot drinks frequently. Either milk or tea may be used; the addition of butter or honey confers no additional virtue. An ice collar or a cold, wet compress may be kept around the neck. A hot salt-water gargle (half teaspoonful of salt to a glass of hot water) every hour or so may give comfort. "Antiseptic" gargles are of practically no value.

Inexpert swabbing of the throat with argyrol or other preparations is not only useless but frequently harmful, since it may spread infection. If sore throat is accompanied by fever, rest in bed and medical care are imperative.

TONICS

Physicians prescribe tonics only as supplements to other treatment. Proprietary tonics encourage delay in seeking medical care. If they have any effect, they either mask the symptoms and give a false sense of security to the patient, or cause irritation of the stomach and intestines. There are no known tonics specific for the ailments of women.

The following are a few of the brands on the market to which one or all of the above comments apply:

NOT ACCEPTABLE

**Bradfield's Female
Regulator.**

Cardin.

Fleischmann's Yeast.

Gude's Pepto-Mangan.

Ironized Yeast.

Kelp-a-Malt.

Peruna.

**Lydia Pinkham's Vegetable
Compound.**

Prunidia.

**Shapeley's Vegetable
Prescription.**

Tall's Female Tonic.

Tanlac.

Tastyeast.

VENEREAL DISEASES

No proprietary medicines should be used in an attempt to treat either gonorrhea or syphilis.

A 33% calomel ointment is recognized as an effective prophylactic against syphilis, but *not* against gonorrhea. Proprietary ointments of approximately this composition include *Andron*, *Sanitube* and *Squibb Prophylactic Ointment*. Information about details of effective prophylaxis against venereal disease may be obtained from a physician. The U. S. Public Health Service publishes a useful booklet on means of preventing venereal infection.

Ref.: *CU Special Report on Prophylactics and Feminine Hygiene*. 25¢.

Clothing and Textiles

BATHING CAPS

The most serviceable bathing caps are those of heavy, plain white, molded rubber with a chin strap attached by metal snaps. Such caps are generally available in department and 5-&10-cent stores.

Avoid caps with button fastenings instead of metal snaps, plain sheet rubber caps selling at about 10¢, or the fancy "creped" caps. All of these, except the *Seal-Tite* listed below, showed poor durability in CU tests.

Very few caps are marked for size, and sizes may differ from brand to brand, or within one brand. It is therefore advisable to compare caps for size before buying. Caps to fit children are especially hard to find but they are sold by some of the better department stores for about 50¢.

None of the caps with special features for keeping the hair dry was found to be both effective and comfortable.

In following brand recommendations, due account should be taken of possible changes in construction for the 1939 season.

Ratings are based mainly on tensile strength and percentage of elongation at breaking point before and after exposure to light. All caps listed, except the last three, are of molded rubber.

Ref.: *CU Reports*, August 1938.

BEST BUYS

Plymouth Quality (Plymouth Rubber Co., Canton, Mass.; distrib., J. C. Penney and S. H. Kress stores). 25¢. White molded cap.

Kleinert's Acushnet (Kleinert Rubber Co., NYC). 29¢. White or light-colored molded cap.

Unbranded caps of heavy white molded rubber, with metal snap strap fastenings (5-&10-cent stores). 25¢.

ALSO ACCEPTABLE

Kleinert's Dri-lined. 39¢. Strip of cotton jersey cemented inside cap at back of head offers no additional protection.

ALSO ACCEPTABLE—CONT'D

Goodrich (B. F. Goodrich Co., Akron, Ohio). Caps at 35¢ and 40¢ tested.

Miller (Miller Rubber Co., Akron, Ohio; subsidiary of Goodrich Co.). 19¢ and 59¢.

U. S. Swim Cap No. 680 (U. S. Rubber Products, Inc., Passaic, N. J.). 25¢.

U. S. Howland. 50¢. Comes in two head sizes.

Kleinert's Olympic Sava-wave Cap. \$1.

Seiberling (Seiberling Latex Products Co., Akron, Ohio). \$1. Lined with rayon jersey which keeps the rubber from catching hairs when the cap is pulled on and off. Smaller than average.

Seal-Tite (Seamless Rubber Co., New Haven, Conn.). 50¢.

The following caps were made of latex. They stretched well before breaking but were not as strong as the molded rubber caps above.

Latex Bathing Cap (sold by J. C. Penney stores). 19¢.

Latexeen Cap (American Latex Corp., NYC). 25¢.

Kleinert's Latex Swim Cap. 25¢.

BATHING SUITS AND TRUNKS

A knit wool bathing suit of good quality is superior in durability and service to rubber, satin lastex, or the cotton or rayon dressmaker types. A good suit should have relatively soft wool, strong two-ply yarn construction, a tight knit, good resiliency, dyes fast to sun and water, and good cut and fit. If your skin is sensitive to wool, buy a suit with a cotton lining.

Do not depend on marked sizes. Know your own dimensions and be sure the suit will stretch sufficiently and be resilient enough to fit comfortably.

Buy a dark color if the suit must last more than one season; light colors are in general more susceptible to fading.

Bathing suits were last tested in the Summer of 1937.

Ref.: CU Reports, July 1937. (Labor notes included.)

BLANKETS

All-wool blankets are the best, since they are warmest and most durable.

In part-wool blankets the wool content must be at least

126 BLANKETS

25% to make an appreciable difference in quality. On the average the part-wool blankets tested by CU were not only lighter in weight and less warm than the all-wool, but decidedly inferior in strength, resistance to abrasion, thickness, and quality of binding.

For those who cannot afford good all-wool blankets, there is no doubt that the better grade part-wool blankets represent better buys than the poor all-wool. Wools do vary in quality, and the poor all-wool blanket might be of both poor material and poor construction.

The quality of two blankets can be roughly compared by squeezing several thicknesses of each in the hand. The more resilient blanket is likely to be made of the better wool. Two simple tests will indicate the quality of the nap. It should not come out in the form of lint when the blanket is rubbed briskly with the palm of the hand; secondly, if the blanket is picked up by the nap at a point somewhere near the center of the blanket, the nap should support the entire weight.

Weight is the most important factor of those determining the price of an all-wool blanket. If the label does not include the finished blanket weight you can ask to see the blanket weighed. Only by knowing the weight per square yard is it possible to make weight comparisons between different sizes. The following table applying to a blanket 72x84 inches should be helpful:

TOTAL WEIGHT (LBS.)	PER SQ. YD. (OZ.)
4½	15
3½	12½
3	10½

For adults, 84 inches is usually the minimum satisfactory blanket length. An increasing number are made 90 inches long.

Sateen is the most durable blanket binding, but it does not hold its color as well as the less durable silk or rayon and it soils more easily.

Ref.: CU Reports and Western CU Supplement, Dec. 1938.

ALL-WOOL

BEST BUYS

Mariposa Winmoor (Shuler & Benninghofen, Hamilton, Ohio). \$7.94. 72x84 size. All wool, but coarse.

BEST BUYS—CONT'D

Blue Ribbon¹ (sold by The Emporium, San Francisco). \$10.95. All wool of good quality.

Pendleton Style 78¹ (Pendleton Woolen Mills, Pendleton, Ore.). \$10.95. All wool of good quality.

ALSO ACCEPTABLE

El Dorado Woolgro (sole distrib., Calif. Wool Growers' Ass'n, 595 Mission St., San Francisco; by mail). \$10.95 plus shipping charges. 72x84 size. All wool of good quality.

Golden Dawn Bar Harbor (J. C. Penney Co.). \$9.90. 80x90 size. All wool of good quality.

Gibboney Hollis (Gibboney Mills, Reedsville, Pa.). \$8.89. 72x90 size. All wool of good quality.

North Star Barbizon (North Star Woolen Co., Minneapolis). \$9.95. 72x90 size. All wool of good quality.

Kenwood Arondac (F. C. Huyck & Sons, NYC). \$8.95. 72x84 size. All wool of good quality.

Sears' Slumbersound Cat. No.—7564 (Sears-Roebuck). \$9.99 plus postage. 72x84 size. All wool of good quality.

Chatham Ronda (Chatham Mfg. Co., NYC). \$7.95. 72x84 size. All wool of fair quality.

St. Mary's Rio (St. Mary's Woolen Co., NYC). \$10.50. 72x84 size. All wool of good quality.

NOT ACCEPTABLE

Cannon-Leaksville Featherlite (Cannon-Leaksville; distrib., B. Altman, NYC). \$7.95. 72x90. Tensile strength poor.

Esmond Velvedere (Clarence Whitman & Sons). \$6.75. 72x84 size. Tensile strength poor.

Stellar¹ ("made expressly for Breuner's" chain furnishing stores). \$5.95. Low weight, thickness and tensile strength.

PART-WOOL

BEST BUY

Ward's Cat. No.—3160 (Montgomery Ward). \$4.89 plus postage. 70x80 size. 84% wool of fair quality. Highest quality of part-wool blankets.

¹ Available in the West only

128 BLANKETS, SLEEPING GARMENTS

ALSO ACCEPTABLE

- Cannon-Leaksville Cavalier** (Cannon-Leaksville Co., NYC). \$3.99. 72x84 size. 48.5% wool of good quality. Second in quality of part-wool blankets.
- Sears' Slumbersound** Cat. No.—7464 (Sears-Roebuck). \$3.89 plus postage. 72x84 size. 52.7% wool of good quality.
- Pepperell** (Pepperell Mfg. Co., Boston). \$2.99. 72x84 size. 32.6% wool of poor quality.

NOT ACCEPTABLE

- Melrose**¹ (sold by Garnett's dep't store). \$2.98. Low weight, thickness and tensile strength.

DOUBLE BLANKETS ("PAIRS")

A small percentage of the blankets sold are manufactured as blanket "pairs," i.e., double blankets woven as one continuous length. Since these blankets usually weigh little more than a good single blanket, and have twice the area, they are necessarily thinner and weaker. They may, it is true, be somewhat warmer than a single blanket of equal weight; but, on the basis of limited tests, CU believes they are seldom durable enough to be good buys.

CHILDREN'S SLEEPING GARMENTS

The first requisite of a sleeping garment is that it shall not bind the child. Make sure that the armholes of fitted sleeves are large enough; raglan sleeves are preferable. Crotch and seat should be roomy, and the suit should be amply long from neck to crotch. If the garment has feet, it is doubly important that the feet and legs and the entire suit be long enough so that the child is not cramped and has room for movement and growth.

Look for strong material, good reinforcements, well-stitched seams and buttonholes. Rubber buttons do not break and cut threads, but they are somewhat difficult for small children to manipulate. Double thicknesses of material are desirable in feet and crotch.

Tests reported in the Jan.-Feb. (1937) *Reports* showed *Do Self* and *Me Do* to be the "Best Buys," and *Arnold*, *Dr. Denton* and *Nazareth* were "Also Acceptable."

No tests have been made since that time, but manufacturers

¹ Available in the West only.

claim the same or slightly improved models are on the market.

The manufacturers of *Do Self* also make *Craigwear*, *Me Fix It* and *Eskies*. They claim that some of these garments have slightly different style features but that they are all made of the same material.

Ref.: *CU Reports*, Jan.-Feb. 1937.

CHILDREN'S SNOWSUITS

A child's snowsuit should keep him warm and dry; it should also be loose and flexible enough to permit freedom of movement. Check for the following desirable features before buying: (1) flexible, all-wool, closely woven or knit fabric (look for an "all-wool" label; hold fabric to light to test closeness of weave); (2) knit anklets with zippers, knit wristlets and neckband, preferably all-wool (garment may be labeled all-wool if main outer fabric alone is all-wool); (3) fast dyes in all fabrics (look for guarantee)—bright colors are desirable because they can most easily be seen by motorists; (4) large patch reinforcements at knees and crotch; (5) roominess (raglan sleeves best); (6) smoothly working zipper (preferably) or strongly sewn buttons and buttonholes—buttons attached with tape; (7) two-piece design to allow for growth—preferably with adjustable suspenders including elastic section (for very small children one-piece suits are better because they are less bulky); (8) absence of unnecessary ornaments.

A closely woven, smooth-surfaced, all-wool fabric affords maximum warmth for a given weight and also best protection against wetting. For such a fabric, water-repellent finishing processes such as *Nevawet*, *Cravenette* and *Aridex* are not essential. The additional protection they afford is not worth a material increase in price.

The suits listed represent in most cases only one of many styles available. Main outer fabric was colorfast in all suits listed except *Sears'*—all fabrics were colorfast in *Brewster* only.

Ref.: *CU Reports*, November 1938.

BEST BUYS

Ward's Cat. No.—7485 (Montgomery Ward). \$7.35 plus postage. All-wool, heavy-weight fabric, fully lined with flannelette, except for body of coat which is lined with genuine fleece (sheepskin); resistance to abrasion good.

(Cont'd next page)

130 CHILDREN'S SNOWSUITS AND UNION SUITS

BEST BUYS—CONT'D

Brewster (J. A. Brewster, Camden, Me.). \$8 plus postage. 100% wool, heavy-weight fabric, blanket type, very thick; no lining; resistance to abrasion very good (highest of those tested).

ALSO ACCEPTABLE

Penney's "Sportclad" No. 42-58 (J. C. Penney Co.). \$5.90. All-wool, medium-weight fabric, fully lined with flannelette; resistance to abrasion fair.

CD Cat. No.—F3000 (Cooperative Distributors, NYC). \$8.41. All-wool, medium-weight fabric; resistance to abrasion good. Coat lined with cotton broadcloth; trousers lined with sateen.

Sally Togs (Robert L. Schwartz & Bro., NYC). \$7.95. All-wool, medium-weight fabric, fully lined with flannelette; resistance to abrasion fair.

Knopf "Beaver" Brand (S. H. Knopf, Boston). \$8.99. All-wool, medium-weight fabric, lined with flannelette; resistance to abrasion fair.

Play-Woolies (Yorkshire Knitting Co., NYC). \$10.95. All-wool, medium-weight fabric, lined with flannelette; resistance to abrasion fair.

Kemwood (Erd-Marshall Co., Port Huron, Mich.). \$16.95. All-wool, heavy-weight, blanket-type fabric; resistance to abrasion good.

Snow-Snug (McKem, Inc., NYC). \$10.95. All-wool, medium-weight knit fabric, no lining except crotch reinforcement; resistance to abrasion good.

NOT ACCEPTABLE

Sears' Cat. No.—4852 (Sears-Roebuck). \$5.98 plus postage. Not all-wool as claimed in catalog. Not colorfast. Medium weight. 79% wool fabric, coat front 52% wool; resistance to abrasion fair.

CHILDREN'S WINTER UNION SUITS

Many child specialists believe that undergarments of cotton rather than of wool or part-wool should be worn even in the Winter, especially by children who spend much of their time in heated buildings. Slight irritations and rashes from woollen undergarments occur more frequently than is generally realized.

See that the suit you buy is elastic and fairly snug. Buttons,

which are best attached by tapes, should not be too small for easy handling. The "self-help" suit, with no buttons at all, is desirable except for thin children.

Children's underwear has not been tested since January 1937. At that time *Me Do* was a "Best Buy" and the highest quality of the suits tested. *Ward's Comfy Tog* was rated a "Best Buy" by virtue of its low price.

"Also Acceptable" were *Me Fix It* (available from Cooperative Distributors), *E-Z*, *Carter's*, *Quickees Tu Way Stretch*, *Vanta* and *Sears' Handy-wear*.

The suits tested were all-cotton, Winter-weight.

Manufacturers' claims or catalogs indicate that the same models of these brands—or models with only minor changes—are still on the market. Prices (December 1938) on the average are the same as those quoted in the Jan.-Feb. 1937 Reports.

Ref.: *CU Reports*, Jan.-Feb. 1937.

FURS

No matter what type of fur you wish to buy, you should:

1. Deal with a well-established store.
2. Before you make any payment, obtain a *written* guarantee covering the following points:
 - a. Identity of fur.
 - b. An estimate of the wear it will give if properly cared for.
 - c. Whether the fur has been dyed. If dyed, ask for guarantee that the color is fast to water and sunlight.
 - d. The length of time during which repairs will be made free.

If you can't obtain a satisfactory guarantee covering these items, *don't* buy the coat.

3. Examine the uniformity of the pelts as to size, gloss, shape and color.

4. Examine the leather side of the coat. Many patches mean that inferior pelts have been used. Leather sewed in between the seams indicates cheap construction. Short seams indicate that damaged and thin places have been cut out and the leather drawn together—a sign of inferior pelts.

5. Examine the fur on the front, elbows, pockets and cuff edges to see if it is thick enough to stand the extra wear these parts will receive.

6. See if the buttons are securely sewed on and the button-holes well reinforced.

(Cont'd next page)

7. Make certain that the coat fits well and permits free movement. If it is tight in any place, the resultant strain will cause a rip or tear.

8. Ask about the composition of the lining. Avoid weighted silks; tightly woven rayons will give better service. See that the lining is securely stitched to the fur.

If you desire durability, but have a limited sum to spend, it is usually better to buy a good-grade coat of inexpensive fur, rather than a cheap grade coat of a costlier fur.

If you are buying a fur coat in August, remember that, ads to the contrary notwithstanding, prices are not apt to be 25% to 50% higher after the sale is over. You will probably have greater style selection in August—but if you want styles of proven popularity, wait until October.

Ref.: *CU Reports*, August 1938. For correction regarding American Broadtail see *CU Reports*, October 1938.

LEATHER GLOVES

Grain leather is on the whole much more durable than degained (for example, suede finished) leather. Hence, if you are interested primarily in service, choose a glove in which you can see the characteristic pattern or grain of the leather. Notable exception: genuine Blackhead Mocha (for men) which is degained but is very strong for its weight.

The regular sale price of good quality leather gloves will seldom be less than \$2.50 and will usually be from \$3 to \$4.

You will, on the average, get more service per dollar from grain leather of the following kinds:

For women—

Pigskin (for casual wear; peccary pigskin best).

Capeskin (for general wear; South African Cape best).

Kid (dress).

For men—

Pigskin (casual).

Capeskin (general).

Goatskin (general).

Blackhead Mocha (dress—degained; see above).

Grain horsehide (work).

Grain cowhide (work).

You will be well advised to make the following tests when you buy gloves:

1. *Examine the label.* It should tell you what type of leather is used in the glove.

2. *Examine the leather.* Press it gently and draw it through your fingers. It should feel soft, supple and alive—not papery or stiff. And see that the different pieces of leather in the glove are reasonably well matched (in dip-dyed gloves, examine the matching of dye on the inside also). Pull on the seams along length for stretch; crosswise for strength.

3. *Examine the construction.* The finest gloves are table cut and are usually identified as such. In men's gloves and women's sport gloves, look for gussets (small inserts) at the base of the fingers.

4. *Rub the glove with your handkerchief* to see if the color comes off. (Important for suede gloves, and for deep shades.)

5. *Make sure the glove is large enough.* Try the gloves on both hands before you leave the store.

Because of the nature of the glove market, in which unbranded products and private brands predominate, CU offers no ratings.

Ref.: CU Reports, December 1938.

MEN'S HANDKERCHIEFS

Look for a handkerchief made of closely woven fabric, with neatly finished hems. See that the stitching is parallel to the threads, for if it is not, the handkerchief will not be square after laundering.

If you need a handkerchief in a hurry, turn to the nearest 5-&-10 rather than to a drugstore or cigar store, for the chances are overwhelmingly in favor of your getting better value for your money there. This conclusion applies to both cotton and linen handkerchiefs. It is based on laboratory tests of men's handkerchiefs, ranging in price from 3¢ to 35¢, including representative samples from five national 5-&-10-cent-store chains and 12 packaged brands (among them *Arrow*, *Sealpackerchiefs*, *Paris Kerchiefs* and *Manhattan*).

Ref.: CU Reports, June 1938.

MEN'S HATS

The ratings which follow are based on laboratory tests reported by CU in November 1937. Emphasis has been given especially to ability to hold shape after wetting, fuzzing up-

134 MEN'S HATS, SHIRTS

from handling in the test, and general quality of materials and construction. All hats listed were of rabbit-fur felt.

Models have changed and many additional types of materials have appeared since the tests were made.

Ref.: *CU Reports*, November 1937.

BEST BUYS

Mallory (Mallory Hat Co., Danbury, Conn.). \$5.

Adam (Adam Hat Stores). \$2.95. Inferior in quality to the more expensive hats.

ALSO ACCEPTABLE

BELOW \$5

Melton-Mellow (Melton Hat Co., NYC). \$3.85.

Truly Warner Mayfair (Truly Warner stores). \$2.95.

ABOVE \$5

Knox Luxor (Knox Hat Co., NYC). \$7.50. Highest quality.

Dobbs Berwick (Crofut & Knapp, East Norwalk, Conn). \$7.50.

Dobbs Cross Country. \$5.50.

Stylepark (Stylepark Hats, NYC). \$5.

Dunlap (Knox Hat Co.). \$5.50.

Penn-Craft (Penn-Craft Hat Co.). \$5.

Lee Water-Bloc (Frank H. Lee Co., Danbury, Conn.). \$5.

Schoble Cambridge (Schoble Hats, Philadelphia). \$5.

Stetson Standard (Jno. B. Stetson Co., Philadelphia). \$7.50.

NOT ACCEPTABLE

Penney's Marathon (J. C. Penney Co.). \$2.98.

Kaufman Deerskin (Kaufman Hat Stores). \$2.95.

MEN'S SHIRTS

Most of the shirt collars tested by CU were fused to produce a semi-stiff collar without the use of starch. Those labeled as "Trubenized" were by far the most satisfactory of the fused type. Tests for shrinkage showed that "Sanforizing" was the best safeguard against shrinkage. Such designations as "full shrunk" or "preshrunk" were found to be worthless. However, at about the time tests were made the Federal Trade Commission made rules regulating the use of such designations.

So far as possible blue and white shirts of the same brand

were tested. In general the blue shirts were made of somewhat lower quality fabric than the white. However, if you send your shirts to a commercial laundry, the blue shirts may last as well as, if not better than white because of the more kindly treatment which will probably be given them.

Ref.: *CU Reports* and *Western CU Supplement*, September, 1938. (Labor notes included.)

BEST BUYS

Ward's Cat. No.—2954 (Montgomery Ward). \$1.39 or 2 for \$2.70 plus postage. Sanforized fabrics and Trubenized collars.

Towncraft (J. C. Penney Co.). \$1.49. Nu Craft Trubenized collars, or soft collars available.

Welwyn (John Wanamaker, New York and Philadelphia). \$1.65.

Ward's Pima Cat. Nos.—2632 and—2637. \$1.79 or 2 for \$3.49 plus postage. Sanforized fabrics and Trubenized collars available.

CD Cat. No.—2844 (Cooperative Distributors, NYC). \$1.95 or 3 for \$5.75 plus postage.

Arrow Paddock (Cluett, Peabody & Co., NYC). \$2.50. Soft collar, Sanforized fabric.

ALSO ACCEPTABLE

Longwear (New Process Co., Warren, Pa.). \$1.16 postpaid.

Sears' Tru-Point Cat. No.—317 (Sears-Roebuck). \$1.29 or 2 for \$2.50 plus postage.

CD Cat. No.—2841. \$1.25 or 3 for \$3.50 plus postage.

Ardley (made by Lebanon Shirt Co., NYC; distrib., Bailey Co., Cleveland). \$1.65.

Super Hardwick (distrib., Allied Stores¹). \$1.65. Trubenized collar.

Lord Pepperell (Preferred Shirt Mfg. Co., NYC). \$1.69. Sanforized fabric. Trubenized collar. The blue shirt had weaker fabric and unless it has a Trubenized collar is "Not Acceptable." See "Not Acceptable" listing below.

Kempton (R. H. Macy & Co., NYC). \$1.83.

Arrow Gordon. \$2. Sanforized fabric.

Tru Val (Tru Val Manufacturers, NYC). \$1.35.

CD Cat. No.—2842. \$1.39 or 3 for \$4 plus postage. Trubenized collar.

¹ Hovey's and Jordan Marsh, Boston; L. S. Donaldson Co., Minneapolis; Bon Marche, Seattle; Golden Rule, St. Paul; Rollman & Sons, Cincinnati; Titche-Goettinger, Dallas; Dey Bros., Syracuse; and stores in other cities.

136 MENS' SHIRTS, SOCKS

ALSO ACCEPTABLE—CONT'D

- Stratford Purple Label** (made by Lebanon Shirt Co., NYC; distrib., Lit Bros., Philadelphia). \$1.48.
Conway (Marshall Field, Chicago). \$1.65.
Mohawk (Superior Shirt Co., Philadelphia). \$1.65.
Gimbel's Special (Gimbel Bros., NYC; Philadelphia; Pittsburgh and Milwaukee). \$1.69. Soft and Trubenized collars.
E&W (Ely & Walker, St. Louis). \$1.69.
Sears' Nobility Cat. No.—216. \$1.89 or 2 for \$3.69 plus postage. Trubenized collar.
Arrow New Trump. \$2. Sanforized fabric.
Arrow Trump. \$2. Sanforized fabric.
Manhattan (Manhattan Shirt Co., NYC). \$2.50.
Hardwick. \$1.39. Satisfactory fused collar.
Eclipse 3 Star (Eclipse Needles, Philadelphia). \$1.95.
Needles' Fruit of the Loom (Eclipse Needles). \$1.65.
Romar (Gerson, Goodman, Tutelman, Philadelphia). \$1.65.
Essley (Essley Shirt Co., NYC). \$1.65. Trubenized collar.
Criterion (Tutelman, Kohn & Co., Philadelphia). \$1.65.
AMC (distrib., Associated Merchandising Corp.²). \$2.
Manhattan. \$2.
Eagle (Jacob Miller Sons Co., Philadelphia). \$1.85.
Van Heusen (Phillips-Jones Corp., NYC). \$2.

NOT ACCEPTABLE

(Because of poor fabric strength)

- Van Heusen**. \$2.
Tru Val. \$1.15.
Sears' Tru Point Cat. No.—318. \$1.29 plus postage.
Lord Pepperell. \$1.69.
Perfec-Test (The White House, Raphael Weill & Co.) \$1.39.
Emperor of Broadcloth (National Dollar Stores). \$1.
Sunlan (New York Hat Stores). \$1.39.
Belnord (The Emporium). \$1.49.
Castlerock (Roos Bros. Stores). \$2.

MEN'S SOCKS

Wool is warm and elastic; it also absorbs more moisture than any other common fiber before it feels damp. Cotton reinforcements should increase the durability of an otherwise

² Bloomingdale's, NYC; Abraham & Straus, Brooklyn; Filene's, Boston; Strawbridge & Clothier, Philadelphia; J. L. Hudson, Detroit; Bullock's, Los Angeles; The Emporium, San Francisco.

all-wool sock. Silk is a strong fiber and very elastic. Cotton has satisfactory strength but less elasticity, and rayon is both weak and inelastic. All-rayon feet are considered unsatisfactory because rayon weakens and abrades badly when it becomes moist.

However, socks are made from all grades of each fiber—and in all grades of construction—and a well-made rayon sock, with no weak spots and adequate cotton reinforcing, is preferable to a poor silk sock made of low-grade, uneven filaments. Very few rayon or silk socks have good colorfastness to washing.

No tests on socks have been made since publication of the 1937 *Buying Guide*. At that time, *Interwoven* part-wool socks and some all-wool socks from J. C. Penney Co. and Florsheim Shoe stores were found to be of good quality. *Ward's* 37¢ all-wool work socks were the "Best Buy" of this type.

Ref.: *CU Reports*, Jan.-Feb., 1937. (Labor notes included.)

MEN'S SUITS

Men's suits in the \$35 to \$40 class are not generally made of more durable fabrics than those priced at around \$20. Their superiority lies rather in more careful cut and workmanship, and more hand tailoring. Suits in the \$10 to \$12 class, on the other hand, are usually inferior in material as well as in workmanship.

Tests made in 1936 of suits selling at from \$19 to \$25 showed that *Richman*, *Howard*, *Crawford* and *Bond* offered good value in that order of merit. In the higher-priced suits selling from \$30 to \$40, the order of merit was as follows: *Worsted-Tex*, *Parkleigh*, *GGG*, *New Yorker*, *Society Brand*, *Hart Schaffner & Marx*.

Subsequent information, not based on complete laboratory tests, showed three other suits in the low-priced class to be of acceptable quality. These were: *Greytest*, *Middishade*, *Fashion Park*.

Ref.: *CU Reports*, Jan.-Feb. 1937.

MEN'S UNDERSHIRTS AND SHORTS

Ratings of the woven shorts are based chiefly on tensile strength of the fabrics and fit after laundering. Two pairs of each brand were tested. Inconsistencies found in the garments are noted.

(Cont'd next page)

138 UNDERSHIRTS, SHORTS

Knitted shirts were rated mainly on bursting strength and size. Weight of the fabric was not counted as a factor.

Ref.: *CU Reports*, January 1938.

WOVEN SHORTS

BEST BUYS

- Arrow Stride; Arrow Grad** (Cluett, Peabody & Co., NYC). 65¢. Good fabric and dimensions. Highest quality of all tested.
- Kress** (S. H. Kress stores). 25¢. Fabrics variable. Shrank below standard dimensions. Choose a tight weave and generous size.

ALSO ACCEPTABLE

(In approximate order of merit)

- Penney's** (J. C. Penney Co.). 39¢. Fabrics variable. Good dimensions. Choose a tight weave.
- Manhattan** (Robert Reis & Co., NYC). 35¢ or 3 for \$1. Fabrics variable. Fair dimensions. Choose a tight weave.
- Reis Jimpant** (Robert Reis & Co.). 55¢. Fabrics and dimensions both variable. Of four shorts tested, fabrics were generally fair and dimensions good.
- Varsity** (Varsity Underwear Co., Baltimore). 50¢. Good fabrics, but shrank below standard dimensions.
- Wilson Super Shorts** (Wilson Bros., NYC). 55¢. Good fabrics and fair dimensions.
- Mansco** (Manhattan Shirt Co., NYC). 55¢. Fair fabrics and dimensions.
- Short-ees** (Superior Underwear Co., Piqua, Ohio). 65¢. Good fabrics, but shrank below standard size. Buy generous size.
- Macy's "7 Points of Quality"** (R. H. Macy & Co., NYC). 29¢. Good dimensions, but low tensile strength.
- Grand's** (F. & W. Grand stores). 25¢. Good fabrics, but shrank excessively below standard size. Buy a size larger.

NOT ACCEPTABLE

- B.V.D.** 50¢. Shrank excessively below standard size. Fairly low tensile strength.
- B.V.D.** 3 for \$1. Low tensile strength. Shrank excessively below standard size.
- Woolworth's "Special 7 Feature."** 25¢. Fair material. Very skimpily cut.

KNITTED UNDERSHIRTS

BEST BUYS

The two "Best Buys" were the highest quality of the shirts tested.

CD Cat. No.—E-2232 (Cooperative Distributors, NYC). 30¢ or 3 for 87¢ plus postage. Good bursting strength, but fairly heavy.

Penney's Perfect-Fitting. 39¢. Two-ply mercerized yarns. Good bursting strength. Medium weight.

ALSO ACCEPTABLE

(In approximate order of merit)

Beau Brummel (S. H. Kress stores). 25¢. Good bursting strength, but very heavy.

Wiltshire (F. & W. Grand stores). 25¢. Fair bursting strength. Medium weight.

Macy's. 29¢. Good bursting strength. Medium weight.

Manhattan. 35¢ or 3 for \$1. Fair bursting strength, and very heavy.

B.V.D. 3 for \$1. Fair bursting strength. Medium weight.

B.V.D. Velvet Down. 55¢. Too short. Very high bursting strength, but material heavy.

Varsity. 50¢. Dimensions generally small. Good bursting strength. Medium weight.

Mansco. 55¢. Very long. Fair bursting strength, and rather heavy.

Reis Jimshirt. 55¢. Too short. Good bursting strength. Medium weight.

Arrow Stride. 50¢. Fair bursting strength. Medium weight.

Shirt-eez (Superior). 55¢ or 2 for \$1. Low bursting strength, and rather heavy.

NOT ACCEPTABLE

Le Savoy (Woolworth's). 25¢. Badly skimped in both length and width. Lightweight material with lowest bursting strength of all.

WATERPROOF RAINCOATS

If a completely waterproof garment is desired, make sure that the fabric itself is waterproof, and then see that the seams are taped and cemented.

(Cont'd next page)

140 RAINCOATS

Keep all raincoats away from excessive heat. Mend breaks in lightweight raincoats immediately, preferably by applying a piece of the coat fabric underneath the tear with rubber cement.

MEN'S RAINCOATS

All coats listed below are made of completely waterproof fabrics—rubberized silk, rubberized cotton or oiled cotton.

Silk is used in expensive lightweight coats; oiled cotton withstands exposure to light best; but a strong, well-cut rubberized cotton with taped seams is cheaper than either and is satisfactory for ordinary use, especially when the rubber is on the inside of the coat so that it is protected from sunlight.

Gabardine coats, treated by Cravenette, Aridex or similar processes, are not included in this listing, for though they are water repellent they are not waterproof: they will soak through in a heavy or prolonged rain.

No tests have been made since September 1937, but models answering the same description as those listed are still being sold under the same brand names. Prices quoted as of January 1939.

Ref.: *CU Reports*, Aug.-Sept. 1937.

BEST BUY

Raynster So Lite No. MA 611 (U.S. Rubber Products, Passaic, N. J.). \$5.50. Cotton fabric with rubber back.

ALSO ACCEPTABLE

Top Hat (fabric by Du Pont; coat by Spatz Bros., NYC). \$7.95. Rubber with silk back.

Goosekin Raingard Style 50 (Arrow Importing Co., Cleveland). \$8.95. Fabric similar to that in *Top Hat*.

Goodyear (Goodyear Rubber Mfg. Co., NYC). \$4.95. Rubber with cotton back.

Ward's Cat. No.—5302 (Montgomery Ward). \$1.79 plus postage. Heavy rubber, with cotton back.

Alligator Featherweight (Alligator Co., St. Louis). \$13.75. Oiled cotton. Heavier *Alligator* oiled cotton coats available for as low as \$5.50.

WOMEN'S WATERPROOF RAINCOATS

Women's oiled silk coats, "Pliofilm" coats, and rubber capes all tear easily. When buying an oiled silk, choose one that fits well and has sufficient skirt overlap. Very little difference

was found in the quality of the fabrics tested. Do not pay more than \$3 except for a very good fit and extra style or convenience features. The "Pliofilm" type, which looks like cellophane, was much less durable than the oiled silk.

Active outdoor women will find heavier coats of the types given in the men's ratings more satisfactory.

RUBBER FOOTWEAR

In general, all-rubber uppers were found to be superior to the cloth-lined type. They resisted tearing somewhat better, were lighter, and fit the shoe more snugly. Also, the insides of all-rubber uppers can be kept cleaner than insides of the cloth-lined type.

CU has made no tests on rubber footwear since September 1936. At that time the *Ball-Band* (Mishawaka Rubber & Woolen Mfg. Co., Mishawaka, Ind.) was a "Best Buy" in both men's and women's rubbers. Also a "Best Buy" in women's rubbers was the *Penco* (sold by J. C. Penney Co.). Among the "Also Acceptable" brands for both men's and women's rubbers were *Goodrich*, *Hood Rubalastic*, and *U.S.*

MUSLIN AND PERCALE SHEETS

If your laundry is done at home or if you pay for your laundry by the piece, a "Class A" muslin sheet (one woven with approximately 72 threads per inch in each direction) will give you the lowest use cost. The average initial cost of "Class B" muslins (woven with approximately 64 threads per inch in each direction) is lower, but they give less service.

If you pay for your laundry by the pound, it will cost no more in the long run to use the much finer textured true percale sheets than it will to use muslin sheets, which are heavier. On the average a true percale will last almost as long as a "Class A" muslin. The initial cost is about twice as high.

Remember that labeled sizes refer to the torn (not hemmed) length, and that a 99-inch sheet is the minimum length for satisfactory service on a 72-inch mattress, after deduction for hemming and shrinkage has been made. A 108-inch sheet is even better. The recommended widths are: 63 inches for a single or twin bed; 72 inches for a three-quarter bed; 81 or 90 inches for a double bed.

It should be kept in mind that the price of sheets varies

142 SHEETS

widely. It is economical to stock up during the January sales.

Prices quoted in the ratings were current in December 1938 and are for an 81x108-inch sheet. Pillow slips are available in all brands.

Ref.: *CU Reports* and *Western CU Supplement*, January 1939. (Labor notes included.)

"CLASS A" AND "CLASS B" MUSLINS

BEST BUYS

Sears' Lady Fair Cat. No.—1957 (Sears-Roebuck, mail order only). 98¢ plus postage. "Class A" muslin. Sheeting also available. Tensile strength satisfactory but considerably below that claimed. A good sheet at a very low price.

Ward's Treasure Chest Cat. No.—9869 (Montgomery Ward). 98¢ plus postage. \$1.29 in retail stores. "Class A" muslin. Weight entirely adequate but below that claimed. Like the *Lady Fair*, a good sheet at a very low price.

ALSO ACCEPTABLE

(Listed in approximate order of merit based on the price given; higher or lower price would change a sheet's relative position.)

Gallia¹ (Raphael Weill & Co.; distrib., The White House, San Francisco). \$1.20. "Class A" muslin.

Mayflower (distrib., R. H. Macy & Co., NYC). \$1.32 for 81x112½-inch sheet. "Class A" muslin.

Fineloom (distrib., Lit Bros., Philadelphia). \$1.34. "Class A" muslin.

Penco (J. C. Penney Co.). \$1.23. "Class A" muslin. Shrinkage in warp 7%—largest of all sheets tested.

Poppy¹ (distrib., Hale Bros., San Francisco). \$1.40. "Class A" muslin.

Victoria (John Wanamaker, NYC and Philadelphia). \$1.35. "Class A" muslin.

Utica (Utica & Mohawk Cotton Mills, Utica, N. Y.). \$1.49. "Class A" muslin.

Lady Pepperell (Pepperell Mfg. Co., Biddeford, Me.). \$1.59. "Class A" muslin. Highest quality of all muslin sheets tested.

Fieldcrest Wearwell (Marshall Field & Co., Chicago). \$1.20. Best value of the "Class B" muslins.

¹ Available in the West only.

ALSO ACCEPTABLE—CONT'D

- Chatham 2" Square Specification** (Chatham Mfg. Co., NYC). \$1.08. "Class B" muslin. Sizing slightly greater than 3.9% standard.
- Dwight Anchor** (Nashua Mfg. Co., Boston, Mass.). \$1.59. "Class A" muslin.
- Golden Gate** (Marshall Field & Co.). \$1.49. "Class A" muslin.
- Fruit of the Loom** (Fruit of the Loom Mills, NYC). \$1.59. "Class A" muslin.
- Pequot** (Naumkeag Steam Cotton Co., Salem, Mass.). \$1.69. "Class A" muslin.
- Ambassador** (Associated Merchandising Corp., NYC). \$1.67. "Class A" muslin.
- Robinson Round Thread** (J. W. Robinson Co., Los Angeles). \$1.65. "Class A" muslin.
- Gimbel Special** (Gimbel Bros., NYC). \$1.79. Poorest value of all "Class A" muslins. Tensile strength lower than claimed.
- Mohawk** (Utica & Mohawk Cotton Mills). \$1.39. "Class B" muslin.

NOT ACCEPTABLE

- Truth** (Pacific Mills). \$1.19. "Class B" muslin. Tensile strength low. Resistance to abrasion poor.
- Mayco Cannon** (May Co.). \$1.10. "Class B" muslin. Tensile strength low. Resistance to abrasion poor. Sizing excessive.
- Cannon** (Cannon Mills). \$1.39. "Class B" muslin. Tensile strength low. Resistance to abrasion poor. Sold under many names: *Fine Muslin*, *Corinthian*, *Cadet*, *Olympic*, *Trojan*, *Gladiator*, each prefixed by name *Cannon*. Also sold under many private names.
- Pepperell Red Label** (Pepperell Mfg. Co.). \$1.19. "Class B" muslin. Tensile strength lowest of all sheets tested—10% lower than next poorest. Resistance to abrasion poor. 4.7% sizing, highest of all sheets tested.

UTILITY AND TRUE PERCALES

BEST BUYS

- Utica Nonpareil**, also sold as **Mohawk Percale** (Utica & Mohawk Cotton Mills). \$1.98. Utility percale.

¹ Available in the West only.

² Available at Cooperative Distributors, 116 E. 16 St., NYC, as CD Cat. No.—H4209.

³ Available at Cooperative Distributors, NYC, as CD Cat. No.—H4227. \$1.72 plus postage.

144 SHEETS, SHOES

BEST BUYS—CONT'D

Regent (distrib., Associated Merchandising Corp.). \$2.85. Utility percale.

ALSO ACCEPTABLE

(Listed in approximate order of merit based on the price given; higher or lower price would change a sheet's relative position.)

Pepperell Percale (Pepperell Mfg. Co.). \$2.14. Utility percale.

Utica Percale^{*} (Utica & Mohawk Cotton Mills). \$3.15. True percale. Highest quality of all sheets tested.

Wamsutta Supercal (Wamsutta Mills, New Bedford, Mass.). \$3.95. True percale.

NOT ACCEPTABLE

Cannon Cavalier (Cannon Mills). \$1.95. Utility percale. Resistance to abrasion poor. Sizing excessive, especially for this grade sheet.

SHOES

Your chances of getting a good fit will be considerably better if you do not buy shoes by size numbers. Insist that the salesman measure both your feet, *while you are standing*. Stand and walk in both shoes and don't buy until you are completely satisfied. Feet of the same length and width vary in other proportions.

A good rule is that a shoe should be loose in the toes and tight at the heel. (Slipping at the heel is a particularly common cause of complaint.) The shoe should fit snugly around the instep. Properly fitted shoes do not need "breaking in."

With children's shoes proper fit is especially important. They should fit comfortably at the time of purchase. A half-inch margin in length should be allowed for three or four months' growth; a greater margin is not desirable. Light and flexible leathers are better for the feet than the more durable but heavy and stiff leathers. Sharkskin tips on the toes are desirable to resist scuffing.

Infants do not need leather shoes until they have learned to walk, and the first pairs should be very soft and flexible.

Mail-order shoes should not be purchased unless you are

^{*} Available at Cooperative Distributors, NYC, as CD Cat. No.—4237. \$2.65 plus postage. Can be bought over the counter. A "Best Buy" at \$2.65.

willing to return them as many times as may be necessary to obtain a satisfactory fit.

Never buy corrective shoes on the advice of the salesman. A competent orthopedic physician is the only person qualified to determine whether or not the use of special supports for correcting foot disorders is desirable.

MEN'S SHOES

The ratings of men's shoes which follow are based on laboratory tests plus examination by an expert in shoe design and manufacture, conducted in March 1939.

These ratings apply specifically only to the model numbers tested. As this Buying Guide goes to press, CU is conducting a study to determine whether or not it is possible, with a reasonable degree of accuracy, to rate an entire line of a particular brand of shoes on the basis of tests of a few models of that brand. Although we are not prepared to draw any final conclusion on this point, the fact that the ratings in this report with a few exceptions conform closely to those in CU Reports, September 1936, indicates that there may be a considerable degree of consistency within brands.

Ref.: CU Reports and Western CU Supplement, April 1939. (Labor notes included.)

BEST BUYS

Hanover (Hanover Shoe Co., Hanover, Pa.). Model 3826 tested. \$4. A very good shoe for the price.

A. S. Beck (A. S. Beck Shoe Stores, NYC). Model 316 tested. \$3.98. Equal in quality and value to *Hanover* above.

Sundial (Int'n'l Shoe, St. Louis). Model 6558 tested. \$6.

ALSO ACCEPTABLE

(In approximate order of value)

W. L. Douglas "Scotsman" (W. L. Douglas Shoe Co., Brockton, Mass.). Model K 0103 tested. \$3.50. A good buy at the price.

C. H. Baker (retailed by C. H. Baker Co.).¹ Model F 6693 tested. \$3.50.

Regal (Regal Shoe Co., Whitman, Mass.). Model 1200 tested. \$5.85. Different shoe from model rated "Not Acceptable" in 1936 report.

¹ Available in the West only.

ALSO ACCEPTABLE—CONT'D

- Crosby Square "New Yorker"** (Mid-State Shoe Co., Milwaukee). Model A8470 tested. \$6.85.
- Nunn-Bush** (Nunn-Bush Shoe Co., Milwaukee). Model 3507 tested. \$8.75. Very high quality which makes this shoe a "Best Buy" for those who can afford to pay for this extra quality. Soles relatively poor.
- Gallen Kamp** (retailed by Gallen Kamp; made by International Shoe Co.).¹ Model 875 tested. \$3.95. Double outsole.
- Karl's Kustom Made** (retailed by Karl's Shoe Stores, Ltd.).¹ Model F 372 tested. \$3.95.
- Bostonian** (Commonwealth Shoe & Leather Co., Whitman, Mass.). Model 1297 tested. \$8.75. A good quality shoe; a close second in quality to *Nunn-Bush* and *Foot-saver*.
- C. H. Baker "Challenger"** (C. H. Baker).¹ Model E 6652 tested. \$4.95. Slightly better quality than the *C. H. Baker* \$3.50 shoe, and somewhat better in appearance.
- Buck-Hecht "Crusader"** (Buckingham & Hecht Co., San Francisco).¹ Model 877 tested. \$4.50.
- Foot-saver** (Commonwealth Shoe & Leather Co.). Model 419X tested. \$10.50. High quality (equal to *Nunn-Bush*), but high priced. Soles relatively poor. Considered best designed of those tested.
- Frank Werner "Dominator"** (retailed by Frank Werner Co.).¹ Model 3K22 tested. \$5.45.
- W. L. Douglas "Ascot"** (W. L. Douglas Shoe Co.). Model G 5533 tested. \$5.85. Better quality than \$3.50 model but not worth difference in price.
- Florsheim** (Florsheim Shoe Co., Chicago). Model S490 tested. \$8.75.
- Nettleton** (A. E. Nettleton Co., Syracuse, N. Y.). Model 216 tested. \$10.
- Walk Over** (George E. Keith Co., Brockton, Mass.). Model 1965 tested. \$6.75. Quality about equal to *Douglas "Scotsman"* and much higher priced. Not a good value.
- Jarman Friendly** (General Shoe Corp., Nashville, Tenn.). Model 820 tested. \$5. Poor design. Not a good value.

NOT ACCEPTABLE

- Educator** (distrib., G. R. Kinney Co.; made by Educator Shoe Co.). Model 8597W tested. \$3.98. A poorly designed and constructed shoe of poor materials.

¹ Available in the West only.

NOT ACCEPTABLE—CONT'D

Thom McAn (distrib., Thom McAn Stores; made by J. F. McElwain Co.). Model 3100 tested. \$3.15. A poor shoe in most details.

Endicott (Endicott-Johnson Corp.). Model Δ G8 tested. \$2.98. A poor shoe.

WOMEN'S SHOES

A test of women's shoes is nearing completion as the *Buying Guide* goes to press.

CHILDREN'S SHOES

Ref.: *CU Reports*, September 1938.

BEST BUYS

Classmates (Ideal Shoe Mfg. Co., Milwaukee). \$2.95. Good-year welt; rubber heels; chrome-tanned soles. Toetips of special leather. Fair workmanship and design.

Weatherbird (Peters Div., International Shoe Co., St. Louis). \$2.50. Goodyear welt; rubber heels; vegetable-tanned soles. Sharkskin toetips. Fair workmanship and design. Sold in California under Gallen Kamp's label.

Buster Brown (Brown Shoe Co., St. Louis). \$3.50. Goodyear welt; rubber heels; chrome-tanned soles; special leather toetips. Fair workmanship and design.

Kali-sten-iks (Gilbert Shoe Co., Thiensville, Wis.). \$4.50. Highest quality of those tested. Goodyear welt; rubber heels; rear part of upper (quarter) made of one piece of leather, eliminating back seam. Chrome-tanned soles; scuff-resisting leather tips. Well sewed; good workmanship. Roomy, well-shaped toes and good design.

ALSO ACCEPTABLE

(In approximate order of merit)

Pied Piper (Pied Piper Shoe Co., Wausau, Wis.). \$3.75. Modified Goodyear welt; low spring heels; vegetable-tanned soles had poor resistance to abrasion. Sharkskin tips said to be available at 25¢ extra. Fair workmanship and design.

Dr. Scholl's (distrib., Scholl Mfg. Co., Chicago). \$3.95. Goodyear welt construction with low spring heels; vegetable-tanned soles of fair quality. Sharkskin toetips. Good workmanship and design.

(Cont'd next page)

ALSO ACCEPTABLE—CONT'D

- Edwards** (J. Edwards & Co., Philadelphia). \$4. Goodyear welt; low spring heels; vegetable-tanned soles of poor quality. Sharkskin tips said to be available at no extra cost. Good workmanship and fair design. Sold in many department stores under the store's own label.
- Pro-tek-tiv** (Curtis-Stephens-Embry Co., Reading, Pa.). \$4.65. Goodyear welt; rather high spring heels, pinned and nailed instead of stitched; fair quality vegetable-tanned soles. Sharkskin toetips. Good workmanship and fair design.
- Dr. Posner's Pli-Tred** (Dr. A. Posner Shoes, Allentown, Pa.). \$4.50. Goodyear welt; low spring heels; vegetable-tanned soles of poor quality; leather counters. Sharkskin toetips and sharkskin heel guards, back part of shoes stitched. Fair workmanship and good design.
- Indian Walk** (Foot Form Shoe Shops, NYC and vicinity). \$5.30. Goodyear welt; low spring heels; vegetable-tanned soles of fair quality. Sharkskin toetips. Excellent workmanship and good design.
- Pediforme** (Pediforme Shoe Co., NYC and vicinity). \$5.75. Goodyear welt; low spring heels; fair quality vegetable-tanned soles. Sharkskin toetips. Excellent workmanship and good design.
- Tru-Form** (Tru-Form Shoes, NYC). \$5.95. Goodyear welt; spring heels; vegetable-tanned soles. Sharkskin toetips. Good workmanship and fair design.
- Thorogood** (Albert H. Weinbrenner Co., Milwaukee). \$2.40. Toecaps too low; quality otherwise average; stitchdown construction with rubber heels; durable chrome-tanned outsoles and fiber midsoles; fiber counters. Sharkskin toetips. Workmanship only fair.
- Educator** (G. R. Kinney Co. stores). \$2.29. Goodyear welt; rubber heels; vegetable-tanned soles of poor quality; fiber counters. Special leather toetips. Fair workmanship and design.
- Sears' Frolic** (Sears-Roebuck, stores only). \$2.69. Goodyear welt; rubber heels; vegetable-tanned soles of poor quality. Sharkskin in place of regular leather toetips. Good workmanship and fair design.

The following shoes were considered to be of somewhat poorer design than those listed above. Special care should be taken in fitting. The Thom McAn was of poor quality; others, fair or good.

ALSO ACCEPTABLE—CONT'D

- Sunny Tucker** (J. C. Penney Co. stores). \$1.95.
Pollyanna (A. S. Kreider Shoe Co., Annville, Pa.). \$3.
Thom McAn (Thom McAn Stores). \$1.95.
Endicott-Johnson (Endicott-Johnson Corp., Endicott, N. Y.). \$3.
Bonnie Laddie (International Shoe Co., St. Louis). \$3.

SNEAKERS

Soles of gum rubber with little or no opaque coloring matter are generally the most durable since inferior, reworked rubber can be used in pigmented soles.

Since it is obviously more difficult for perspiration and heat to escape through a heavier, more tightly woven fabric, shoes with the most durable uppers are likely to be less comfortable than the cheaper ones made of comparatively loosely woven fabrics. The uppers of some of the shoes were "ventilated" by a patented method. However, "ventilated" uppers of tightly woven fabric were nearly as impervious to air as those of similarly woven fabric which were not "ventilated."

Toe guards are important. Most shoes had adequate reinforcement at this point. If the toe feels abnormally thin and flexible, the reinforcement is probably inadequate.

Prices are given for size 6. In some brands prices vary according to size.

Ref.: *CU Reports*, August 1938.

BEST BUYS

- Penco Air Cooled** (distrib., J. C. Penney Co.). 98¢. Good quality.
Davega Premier (distrib., Davega City Radio stores, NYC). \$1.69. Available only in the New York metropolitan area. Highest quality shoe tested.

ALSO ACCEPTABLE

- Thom McAn** (Melville Shoe Corp., NYC). 89¢.
Keds for Basketball (U. S. Rubber Products, NYC). \$1.95. Second highest quality tested, but high priced.
Ward's Skips (Montgomery Ward, stores only). \$1. Cat. No.—4938, at 87¢ plus postage, appears to be identical.
Allsport (distrib., Woolworth's). 55¢.
Cambridge Sneex (Cambridge Rubber Co., Cambridge, Mass.). 98¢.

(Cont'd next page)

150 SNEAKERS, TOWELS

ALSO ACCEPTABLE—CONT'D

Hood Ventilated Xtrulock Process (Hood Rubber Co., Watertown, Mass.). \$1.25.

Keds Speedway Bal. \$1.49.

Oneida (U.S. Rubber Co.). \$1.95. Distributed on West Coast by Gallen Kamp.

NOT ACCEPTABLE

Sears' Speedster (Sears-Roebuck). 95¢. Cat. No.—9501, at 85¢ plus postage, appears to be identical.

Ball Band (Mishawaka Rubber & Woolen Mfg. Co.). 94¢.

TOWELS

Bargain towels may not be economical if their price is lower because of smaller size or poorer construction. Imperfect towels, which should be marked "run of the mill" or "seconds," are poor buys if the irregularity is in the yarn or weaving, but may be good buys from a purely utilitarian point of view if the irregularity is in the pattern or in other factors affecting appearance but not wear.

A new towel should be laundered before using. The first few launderings, which remove the finishing materials, increase the absorbency of all towels.

Colored towels of the same quality (yarn and construction) are more expensive and less absorbent than white towels.

TURKISH (BATH) TOWELS

Examine carefully the towels you purchase, since any given brand name may be applied to towels of many different grades.

Turkish towels should have a firm, tight ground weave and a dense surface of short, thick, curly loops. Hems and selvages should be sturdy.

Of the medium-size (22x44 inch) towels, those selling for 25¢ or less are almost uniformly poor buys. Good white towels are obtainable at 40¢ to 65¢. Towels selling for more than \$1 often sacrifice absorbency and durability for luxurious appearance.

Towels of satisfactory quality, colored on one side, can be bought at 60¢ to 75¢ (size 22x44). Strong pastels are preferable to light pastels, and light pastels to the dark colors which bleed when washed and must be laundered separately.

Since a full report on turkish towels, based on laboratory tests, is planned for an early issue of *CU Reports*, no brand recommendations of turkish towels are given here.

The listings given below for other types of towels are based on a consultant's recommendations, not on tests.

ATHLETIC AND FRICTION

Athletic towels are turkish towels woven of highly twisted, harsh cotton yarns. They are generally ribbed. Narrow-ribbed towels selling at about 60¢ in the *Martex*, *Cannon* and *Va-mo-co* lines are good buys.

Friction towels are turkish towels woven with a cotton ground and highly twisted linen loops. They can be obtained in the *Martex* and *Va-mo-co* lines at \$1.85 unbleached, and \$2.25 bleached. The unbleached are the better buys.

FACE TOWELS

A huck towel is more absorbent and durable than a fine, smooth damask towel. A good huck linen towel has full, long yarns without any knots, and a close, tight weave. Partly bleached towels may be stronger than full-bleached ones; they are not, of course, so white. Linen face towels do not lint or stain so readily as cotton.

Prices given in the ratings are for size 18x32 inches, except as otherwise noted.

BEST BUYS

Webb Irish Linen (William Liddell & Co., NYC). Size 18x34. 59¢. All linen. Fine yarn, close weave, damask border. Hemstitched.

Webb Irish Linen. 49¢. All linen. Heavy yarns, tightly woven. Durable and absorbent.

ALSO ACCEPTABLE

(Order has no significance)

Webb Irish Linen. 50¢. All linen, damask border, no hemstitching. Finer yarn, but not so closely woven as "Best Buys."

Niagara (Niagara Textile Co., Lockport, N. Y.). 30¢. Cotton and linen mixture, tightly woven. Absorbent and durable.

Martex West Point. 20¢ to 25¢. All cotton. Soft, heavy yarn. Durable.

Boott Mills (Parker, Wilder & Co., NYC). 6 for \$1. Comments on *Martex* apply.

(Cont'd next page)

152 TOWELS, HOUSE DRESSES

NOT ACCEPTABLE

No linen towel will be satisfactory if it has coarse linen yarns, knotted yarns, or a loose weave. It usually does not pay to buy all-linen face towels below 40¢.

DISH TOWELS

Linen will dry faster than cotton, and stain and lint less. But linen is more expensive, so if you want a dish towel for less than 20¢, buy cotton.

BEST BUYS

Sterens (Stevens Linen Works, Boston). Size 18x32. 35¢ to 40¢. All-linen crash, closely woven.

Fieldcrest Kwik-Wipe (Marshall Field & Co., NYC). Size 16x32. 6 for \$1. Cotton. Better than a cheap linen.

Startex Wonder-dri (Tucapau Mills, Boston). Size 17x32. 15¢ to 25¢. Cotton and linen mixture. Better than a cheap linen.

Yorflax (York St. Flax Spinning Co., NYC). Size 22x36. 50¢ to 60¢. Imported Irish linen. Twill weave. Too heavy for glasses.

Yorflax. 50¢ to 60¢. Imported Irish linen. Smooth plain weave, and fine yarn. A good glass towel.

ALSO ACCEPTABLE

Sterens. Size 17x32. 18¢ to 25¢. All-linen crash. Heavier crash and more loosely woven than 35¢ "Best Buy."

NOT ACCEPTABLE

Yorflax. Size 22x34. 30¢. Imported Irish linen. Twill weave. Usually loosely woven; very thin after laundering.

Loosely woven, all-cotton dish towels.

Linen towels below 20¢.

WOMEN'S COTTON HOUSE DRESSES

Choose a sturdy fabric such as percale or broadcloth. Voiles and lawns cannot be expected to withstand the hard usage which falls to the lot of the average house dress.

Whenever possible, try on house dresses before buying them. Raise the arms to make sure that shoulders and set-in sleeves do not bind. Sit down to see if the skirt fits properly.

Pull on a seam to determine whether there is bad fabric

slippage. Seams and hem should be straight with small, even stitches. Buttons or snaps should be carefully sewn. See that pockets are straight and the two sides of the collar even.

Look for labels with guarantees covering fiber content, shrinkage and colorfastness to both washing and sunlight. If washing according to instructions is made a condition of the guarantee, be sure that these instructions are practicable for cotton house dresses—which should not require the care given fine silks or laces.

Keep the purchase slip in case you want to return the dress for bad fading, shrinking, seam slipping or fabric imperfections. These are considered reasonable causes for complaint. Color changes caused by strong bleaching agents such as *Zonite*, *Clorox* and *Oxol* and fabric weakening caused by the use of liquid perspiration suppressors are not reasonable cause for complaint.

Ref.: *CU Reports*, June 1937.

WOMEN'S SLIPS

A proper label on a slip should identify the fiber, indicate whether or not it is weighted, give a guaranteed minimum tensile strength, and include some kind of guarantee covering shrinkage, fabric slippage and satisfactory seam strength. Ask especially for guarantees against the very common defect of shifting of the fabric threads. A well-made slip of good rayon fabric is preferable to a weighted silk, or a silk which does not fit properly and is poorly cut and sewed.

Make sure the slip fits. If it does not, it will give poor service. If possible, try it on. Look for correct length, a smooth fit, material cut on the true bias or the true straight, and plenty of room in the hips and skirt so that the slip will not twist or ride up. Metal strap adjusters and (on brassiere-top models) elastic strap inserts are desirable.

Look for small even lock stitches, rather than the long chain stitch which is often used on cheap slips. Machine-made slips are in general more durable than the handmade at the same price.

Tailored slips generally wear better than lace-trimmed ones; cheap lace-trimmed slips are not good buys. If a lace-trimmed slip is bought, be sure that the straps are securely fastened to the fabric, not just to the lace.

No slips have been tested since October 1937. The slips

154 WOMEN'S SLIPS, STOCKINGS

listed below are those which were found to be "Best Buys" or "Also Acceptable" at that time, and which are still being sold under the same brand and model names.

Ref.: *CU Reports*, October 1937. (Labor notes included.)

WOVEN SLIPS

All slips are tailored and of bias cut unless otherwise noted.

BEST BUYS

- Barbizon Ritemore.**¹ \$1.65. Viscose rayon.
Barbizon Bryn Mode.¹ \$2.98. Pure-dye silk satin.
Penney's Seraceta. 98¢. Acetate rayon taffeta.
Barbizon Shelby.¹ \$2.25. Pure-dye silk crepe.

ALSO ACCEPTABLE

- Yolande.** \$2.95. Pure-dye silk crepe. Hand-sewed.
Seamprufe. \$1.98. Weighted silk crepe. Plain style without panel.
Rhythm. \$1.98. Weighted silk crepe.
Twin Weaves. \$1.95. Weighted silk crepe.

KNIT SLIPS

BEST BUYS

- Luxite Your Highness.** \$2. Viscose rayon and some silk.
Miss Vanity. \$2. Cuprammonium rayon and some silk.

ALSO ACCEPTABLE

- Kayser No. 6312/2.** \$1.65. Rayon and some silk.
Chanda (Macy's). \$1.83. Cuprammonium rayon.
Kayser Cordials. \$1.39. Viscose rayon.

WOMEN'S STOCKINGS

Silk has great strength and elasticity. Compared to it, rayon is weak and has little elasticity. Cotton has moderate elasticity and strength, but the fibers are coarser and heavier than silk. Cotton does not snag so badly, however, and will stand more abrasive wear than either silk or rayon.

¹ *Barbizon* slips are available from Cooperative Distributors, 116 E. 16th St., NYC, at the above prices postpaid to any part of the United States.

For appearance, silk is the best fiber, since a well-knit silk fabric is clear and will cling to the leg. Rayon can be clear and lustrous, but it will bag and wrinkle at the knees and ankles. Cotton may be more or less lustrous, depending on the degree of mercerization, but a sheer lisle fabric will show an uneven, mottled appearance, and all lises will wrinkle somewhat at the ankle.

Remember the following points when buying any stockings:

1. Buy two or more pairs at a time, so that if one stocking should become damaged, the other may be used with either of the second pair.

2. The very sheer silks or lises are not durable, no matter how much they cost. Buy stockings according to the use to which they will be put. In silk stockings, the lower the thread number, the thinner the stocking. A four-thread silk is the sheerest weight from which reasonable wear can be expected. The higher the gauge number, the greater the number of stitches per row, and, other things being equal, the greater the probable durability.

3. Be careful to get the right size, length and stretch. The stocking foot should measure at least $\frac{1}{2}$ inch more than the length of the foot as it normally supports the body weight. Stockings usually vary from 29 to 31 inches in length, but it is possible to get longer or shorter ones. Tops of silk stockings should stretch to $11\frac{1}{2}$ inches, and ankles to $8\frac{1}{4}$ inches across from instep to heel.

4. Examine the stockings for defects and check the adequacy of the reinforcements. For best wear, reinforcements must be high enough at the toes and heels to cover the points of hardest wear. Silk and rayon stockings should have cotton reinforcements for durability. Look at the closeness of seam stitching; note particularly whether the seams of mesh stockings are straight and smooth.

Ref.: *CU Reports*, May and August 1936—silk stockings. January 1938 and *Western CU Supplement*, October 1938—lisle and rayon stockings (labor notes included).

SILK STOCKINGS

The purchase of two or more pairs at a time is especially important in the case of silk stockings.

FULL-FASHIONED RAYONS

All-rayon stockings will wrinkle at the ankle.

Stockings made of clear well-knit Bemberg might be ex-

156 STOCKINGS

pected to give satisfactory service if the feet were made of cotton, but no such stockings have yet come to CU's attention. Some selling for 59¢ had all-rayon feet and wore very poorly.

So far as we know, no rayon mesh hose are on the market.

CU has tested some 30 mesh stockings, ranging in price from 49¢ to \$2.95. All of these were sold as rayon, and not one of them was rayon. You can be reasonably sure that any stocking which looks like silk, feels like silk and wears like silk, is silk.

LISLE STOCKINGS

Light-colored lises are preferable since they present a less mottled appearance on the leg.

Of the plain knit stockings, "sheer" lises offer the best compromise between wear and appearance. The thinner mesh stockings do not wrinkle so badly at the ankles as the plain knits.

Of the lisle hose tested in 1938, the following "Best Buy" and "Also Acceptable" brands were still available in February 1939.

"SHEER" LISLE

BEST BUYS

Bryn Mawr (Gus. Edelstein Bro. & Co., NYC). Cooperative Distributors Cat. No.—1007. 79¢ or 3 for \$2.29 plus postage.

Gotham Gold Stripe (Gotham Hose Co., NYC). \$1.

Dureen (distrib., Shonwasser Co., San Francisco). \$1.15.

Available West Coast only.

ALSO ACCEPTABLE

Bryn Mawr. Cooperative Distributors. Cat. No.—1005. 94¢ or 3 for \$2.75. \$1 in department stores.

Belle Knit (Belmont Hosiery Co., NYC). \$1.

Hollywood Monotop (Hollywood Hose, Inc., NYC). \$1.

Saks (Saks Fifth Avenue, NYC). \$1.25.

"MEDIUM" LISLE

BEST BUYS

Bryn Mawr. 79¢.

Belle Knit. 79¢.

ALSO ACCEPTABLE

Westminster (Westminster, Ltd., NYC). \$1. Available West Coast only.

Wayne Knit (Wayne Knitting Mills, NYC; distrib., Bullock's, San Francisco). \$1.

Gaymode (distrib., J. C. Penney Co.). 98¢.

"CHIFFON" LISLE

Bonnie Doon (Alex Lee Wallau, NYC). Three styles of *Bonnie Doon* stockings were tested and were rated either as "Best Buys" or as "Also Acceptable." The manufacturer informs us that these styles (*Bonnie Doon* chiffon, medium weight, crepeyle) have been discontinued but that similar ones have been substituted.

WOMEN'S UNDERWEAR

Look for warp-knit fabrics because they do not run. They may be recognized by the characteristic knitted "stocking" stitch which appears (but in the crosswise direction) on the reverse side of the fabric as well as on the right side. Fancy knits frequently run at least one way, and plain knits run both ways.

Stretch the fabric and the elastic at the waist at least as much as will be necessary to put the garment on. Then examine the stitching to make sure that it has not broken.

All-silk fabrics are strongest. The rayons tested were of satisfactory strength, but since they lose from 30% to 50% of their strength when wet it is necessary to wash them carefully.

Panties are often mismarked as to size, so buy by actual rather than by marked size.

The garments listed below are warp-knit and were found to be "Best Buys" or "Also Acceptable" in the March 1938 tests. The same models (with minor changes, in some cases) were still available in January 1939. Prices given are those prevailing then.

Ref.: *CU Reports*, March 1938. Also *CU Reports*, October 1937 for report on women's slips, containing discussion and illustration of warp-knit fabrics.

BEST BUY

Blue Swan Celanese Tricot (Bell Knitting Corp., Sayre, Pa.). 39¢. Non-run, acetate rayon.

(Cont'd next page)

ALSO ACCEPTABLE

Kayser Milanese Style 5807/7 (Julius Kayser & Co., NYC).

\$1; \$1.25. Practically non-run, all-silk. Highest quality tested.

Munsing Wear (Munsingwear Corp., Minneapolis). \$1. Non-run, rayon and silk.

Vanity Fair Heigh-Ho (Vanity Fair Silk Mills, Reading, Pa.). \$1; \$1.25. Non-run, Bemberg rayon.

Luxite Fil D'or (Luxite Div., Holeproof Hosiery Co., Milwaukee). \$1. Cooperative Distributors, Cat. No.—1242, 95¢ plus postage. Non-run, viscose rayon and silk.

Kayser Style 6806. 79¢. Non-run, viscose rayon and silk.

Chanda (R. H. Macy & Co., NYC). \$1.09. Practically non-run, Bemberg rayon.

Automobiles and Supplies

ANTI-FREEZES

Ethylene glycol (as in *Eveready Prestone*) is the best anti-freeze for general use but should not be used in leaky radiators. Denatured ethyl alcohol is usually preferable for use in cars whose radiators are not leakproof. CU recommends, however, that in using alcohol anti-freeze in cars equipped with hot-water heaters, the cooling system thermostat should be set somewhat lower (not over 155° F.) than for use with ethylene glycol, as otherwise there will be rapid evaporation of the alcohol. Since this may impair heater performance, ethylene glycol is preferable for use in cars with hot-water heaters.

Some of the alcohol solutions have non-volatile oils added to serve as evaporation retarders. These retarders are of limited effectiveness, but alcohols to which they have been added are better buys (at about the same price) than those that do not have them.

The manufacturers of *Prestone* claim that its corrosion inhibitors may become ineffective if it is used for more than one season. This may be true, but the saving in purchase price that re-use permits will probably more than compensate for the very slight increase in corrosion, if you do not mind the trouble of draining and storing your radiator liquid.

Salt solutions, honey and other sugar solutions, kerosene and fuel oil should not be used in radiators.

If you use alcohol, be sure that it is denatured grain alcohol. Methanol (methyl or wood alcohol) is too poisonous for safe use. One can never be sure that some of the vapors will not get inside the car.

Thorough cleaning of the radiator is advisable before the anti-freeze is added. (See *CU Reports*, November 1937, for method of cleaning.)

Before putting in the anti-freeze, tighten all hose connections and replace any worn ones. Tighten the water pump

and cylinder-head nuts. (If the cylinder-head gaskets are defective, it is especially important to replace them before adding *Prestone* or glycerine. CU has received reports of serious damage caused by *Prestone* seeping past defective gaskets and "gumming up" the motor.)

When filling a radiator containing anti-freeze keep the water level about one inch below opening of overflow pipe (two inches if the motor is cold).

Most of the brands listed below were tested in 1937, but the manufacturers have been given an opportunity to state changes made since then.

Brands marked (*) were tested by the North Dakota Regulatory Dep't in February 1938.

Ref.: CU Reports, November 1938.

BEST BUYS

ETHYLENE GLYCOL

Can be conveniently purchased at retail only as:

Eveready Prestone (Carbide & Carbon Chemicals Corp., NYC). \$2.95 a gal. Ethylene glycol with added rust inhibitor.

DENATURED ETHYL ALCOHOL

Anti-freeze solutions which are mainly ethyl alcohol are "Best Buys" for cars having cooling systems not readily made leakproof.

Super Thermo (Publicker Commercial Alcohol Co., Philadelphia). 20¢ a qt. Contained an evaporation retarder.

ALSO ACCEPTABLE

Super Pyro (U. S. Industrial Alcohol Co., NYC). 25¢ a qt. Denatured alcohol. Contained an evaporation retarder.

Thermo Royal (Publicker Co.). 25¢ a qt. Denatured ethyl alcohol. Contained an evaporation retarder.

Super Duratex (Publicker Co.). 16¢ a qt. in gal. lots. Denatured ethyl alcohol. No evaporation retarder.

***Blue-Flo** (Carbide & Carbon Chemicals Corp.). 20¢ a qt. Denatured ethyl alcohol.

Duratex (Endurance Products Co., NYC). 19¢ a qt. in gal. lots. "Alcohol-Glycerine" on label misleading since preparation contained little glycerine. Mainly denatured ethyl alcohol. No evaporation retarder.

***Five Star** (E. I. du Pont de Nemours & Co., Wilmington, Del.). 25¢ a qt. Denatured alcohol with corrosion inhibitor.

ALSO ACCEPTABLE—CONT'D

Ward's Non-Evaporating (Montgomery Ward). 59¢ a qt. (\$2.19 a gal.) plus postage. A mixture of anti-freeze liquids.
Sears' Super Service (Sears-Roebuck). 58¢ a qt. (\$2.17 a gal.) plus postage. A mixture of anti-freeze liquids.

NOT ACCEPTABLE

Methanol and anti-freezes consisting principally of it:

Zerone (E. I. du Pont de Nemours & Co.). Methanol.
Blo-zero (Guardian Products Co.). About 50% methanol.
Flotex (Windsor-Lloyd Products, Inc.). Methanol.
***Ford Anti-Freeze** (Ford Motor Co.). Partly methanol.
***Genuine General Motors** (General Motors Corp.). Methanol.
***Koldpruf** (Cities Service Oil Co.). Methanol.
Methazone (Templar Products Co.). About 75% methanol.
Mobil Freezone (Socony-Vacuum Oil Co.). About 60% methanol.
Nor'way (Commercial Solvents Corp.). Methanol.
Winter-Flo (Carbide & Carbon Chemicals Corp.). Methanol.

SALT SOLUTIONS

Alpco (Aluminum Linflax Co.). Essentially a solution of calcium chloride in water.

Kerosene and anti-freezes containing it:

Hamm's Permazone (Midwest Chemical Co.). Mixture of kerosene and distillate with dye.

AUTOMOBILES

1939 AUTOMOBILES

A general survey of 1939 automobiles appeared in *CU Reports* for December 1938; full ratings of models up to \$1,400 were carried in the February 1939 issue. Since it is impossible to condense all the necessary information for the *Buying Guide*, no ratings are given here. Members should refer to the original *Reports* articles. (Labor notes in February.)

USED CARS

A new survey of the used car field is being conducted as the *Buying Guide* goes to press. The report is scheduled to appear in an early issue of the *Reports*.

GASOLINES

A little engine knocking or "pinging" under load, with fuels of low octane (anti-knock) rating, does no harm. For this reason it is well to try any cheap gas that does not cause excessive knocking. Many third-grade gasolines will give satisfactory service at definite savings.

Not every section of the country, however, has third-grade gasolines for sale; and third-grade gasolines are not always so marked. Look for the gasoline selling at lower price than the regular grade. Most cars five years or older—of which there are many on the road—run satisfactorily with gasolines having an octane rating from 60 to 65. Only a few late-model cars require a 70-octane gasoline.

There are several brands of the new leaded 67-octane "third-grade" gasolines on the market in the Central States. At present we have no technical data concerning them. Most of the regular gasolines contain tetra-ethyl lead, added to increase the octane rating. Because of possible added hazards to health, it is advisable to avoid the use of leaded gasoline where satisfactory non-leaded gasolines are available. A list of non-leaded gasolines sold in the various States, claimed to have been tested for stability and gum content, and approved for use in lamps, stoves, and similar appliances, is obtainable without charge from United Laboratories, 240 North St. Francis, Wichita, Kansas, or from Consumers Union (enclose 3¢ stamp).

Compounds claimed to be gasoline "savers" and "dopes," often sold by mail, promise to increase gasoline mileage 25% to 50%. Such claims are of no merit, and these "pep" compounds are not recommended.

Ratings of 95 samples of gasoline were given in the July 1938 *Reports* and Western CU Supplement (with a correction on page 22 of the November 1938 issue). These ratings are not repeated here, because some of them are very probably no longer accurate, and the situation in the Central States has been changed by the introduction of the new leaded 67-octane gasolines.

AUTO HEATERS

Good non-advertised heaters are available on a national scale, and cost about 20% less than some of the widely advertised brands giving the same performance. A heater with sufficient heating capacity for an average car in normal Winter

conditions can be had for from about \$8 to \$13. For larger cars and for very cold climates a heater of adequate size may cost from \$18 to \$30.

Other things being equal, the output of a heater depends largely on the size of the core and the size and speed of the fan which circulates air through it.

A heater should be equipped with a rheostat for controlling the speed of the fan and with an opening for the attachment of a windshield defroster (they come for an extra cost of from \$1 to \$3).

To the list price must also be added an installation charge; and in most cases an adjustable thermostat must be purchased at a cost of \$1.50 to \$3.

Hot-air heaters are not rated. The "lay-on" type particularly is likely to permit the infiltration of poisonous carbon monoxide gas from the exhaust into the car.

Ref.: *CU Reports*, November 1938.

BEST BUYS

Ward's Supreme Quality Cat. No.—5008 (Montgomery Ward, mail order only). \$9.85 plus postage. Highest heating capacity of all heaters tested. Built-in defroster outlet. Available without defroster as Cat. No.—5009 at \$8.45 plus postage.

Hot-Wave Twin-Flow (Western Auto Stores chain). \$8.95. Similar to *Ward's* in construction and performance. Apparently made by the same manufacturer.

Sears' Heatmaster Cat. No.—08303 (Sears-Roebuck, mail order only). \$9.45 plus postage. Similar to both of above.

ALSO ACCEPTABLE

(In approximate order of merit)

Eureka Model 555 (Pep Boys chain stores; general offices, Philadelphia). \$7.95. Heating capacity intermediate between the three models listed above and that of the *E. A.* heater below.

E. A. Senior Model Hot-Water Heater (E. A. Laboratories, Brooklyn; distrib., Strauss chain stores). \$7.29. Lowest heating capacity of brands tested. Satisfactory, however, for small cars or relatively mild climates.

Arvin Model 47F (Noblitt-Sparks Industries, Inc., Columbus, Ind.). \$9.95. Heating capacity only slightly higher than that of *E. A.* heater listed above. Shutoff valve supplied for 60¢ extra.

(Cont'd next page)

164 AUTO HEATERS, MOTOR OILS

ALSO ACCEPTABLE—CONT'D

HaDees Chief (Liberty Foundries Co., Rockford, Ill.). \$9.95.

Heating capacity about equal to *Arvin*.

Tropic-Aire Zephyr Model (Tropic-Aire, Inc., Chicago).

\$12.95. Price high for heating capacity, which is about equal to that of the *Sears' Heatmaster*.

NOT ACCEPTABLE

Perfection Model K (Eaton Products, Inc.). \$9.95. Mechanically inferior. Price too high for construction and for heating capacity, which is about equal to that of the *Arvin*.

Another type of heater with a source of heat independent of the engine temperature has recently been introduced by the Stewart-Warner Corp. This heater, known as the *South Wind*, burns gasoline as a fuel. It will not work unless the engine is running. In view of the tremendous amount of waste heat lost by the modern automobile engine through the cooling system and exhaust system, CU does not advise burning extra gasoline for heating the car.

MOTOR OILS

Use the lightest (lowest SAE number) oils which give good lubrication. SAE 30 oils are considered generally satisfactory for Summer use, and 10W and 20W oils for Winter, provided the piston rings are not badly worn. Lighter oils are consumed more rapidly than heavy oils. But heavy oils increase friction and more gasoline is required to operate the car. The saving in gasoline more than offsets the increase in oil consumption. (See "Millions on Wheels," page 162.) 10W and 20W oils must fall within specified limits of viscosity at 0° F.; there is no 0° F. viscosity specification for SAE 10 and 20 oils. Therefore, in regions where extreme cold is encountered, 10W oils are definitely superior to SAE 10 oils.

Considerable savings can be made by buying oil in large quantities (2 to 5 gallons). Keep the crankcase properly filled, ordinarily changing the oil completely only with the change in seasons, when a light oil must be substituted for a heavy, or vice versa.

If driving is done under particularly dusty conditions, however, it is advisable to drain out the oil at intervals of about 2,000 miles, unless an oil filter is used and kept in good condition. Drain into a cylindrical container (not a pan)

after the engine has been running for a while. Allow the oil at least three hours to settle; then pour back into the engine all except the bottom quart.

The prices given are for quart purchases unless otherwise stated. All oils rated as "Best Buys" were paraffin base.

CU has made no new tests on motor oils in 1938 or 1939. We believe that the great majority of 1937 brand ratings are still reliable, and we are reprinting them.

Ref.: *CU Reports*, July and October 1937. (Labor notes in July.)

SUMMER MOTOR OILS (SAE 30)

BEST BUYS

A-Penn (A-Penn). 13.6¢ in 2-gal. lots.

Penn-Rad (Radbill). 13.4¢ in 2-gal. lots.

Travelene (Strauss Stores). 16.4¢ in 2-gal. lots.

Co-op 100% Pennsylvania (for retail source in East, write Eastern Cooperative Wholesale, NYC). About 18¢ in 2-gal. lots.

Penn Co-op (for retail source in North Central States, write Midland Co-op. Wholesale, Minneapolis). About 18¢ in 2-gal. lots.

Good Penn (Western Auto Stores in Central and Eastern States). 18¢.

Firestone Penn-Sentinel (Firestone). 18.5¢ in 2-gal. lots.

Sears' Cross Country (Sears-Roebuck, stores only). 20¢ in 5-qt. cans. Cheaper when coupons are used.

Ward's 100% Pure Pennsylvania "Supreme Quality" (Montgomery Ward). 17.8¢ plus postage in 5-qt. lots.

ALSO ACCEPTABLE

Oil marked by an asterisk () were paraffin-base oils. Oils priced above 25¢ a quart are considered too expensive.*

Emerald (Sinclair). 12.5¢ in 2-gal. lots.

Macy's Re-refined (Macy's). 13.6¢ in 2-gal. lots.

Premium* (Canfield). 25¢.

RPM (Standard of Calif.). 25¢.

Tydol (Tide Water). 25¢.

Gulflube (Gulf). 25¢.

Lubrite (Socony-Vacuum). 25¢.

New Texaco (Texas). 25¢.

Linco (Ohio). 25¢.

(Cont'd next page)

ALSO ACCEPTABLE—CONT'D

- Atlantic* (Atlantic). 25¢.
Amoco (American). 25¢.
Opaline (Sinclair). 25¢.
*Golden Shell** (Shell). 25¢. (Sample purchased in East.)
Essolube (Colonial Beacon). 25¢.
En-ar-co (National). 26¢.
*Lion Head** (Gilmore). 30¢.
*Mobiloil** (Socony-Vacuum). 30¢.
*Monogram** (N. Y. Oil). 30¢.
*Shell-Penn** (Shell). 30¢.
Sinclair Pennsylvania. 30¢.
*Tiolene** (Pure Oil). 30¢.
*Veedol** (Tide Water). 30¢.
Havoline (Texas). 30¢.
Richfield (Richfield). 30¢. (Sample purchased in East.)
Triton (Union of Calif.). 30¢.
*Alemite** (Alemite). 35¢.
*Gulfride** (Gulf). 35¢.
*Kendall** (Kendall). 35¢.
*Koolmotor** (Cities Service). 35¢.
*Quaker State** (Quaker State). 35¢.
*Pennzoil** (Pennzoil). 35¢.
*Valvoline** (Valvoline). 35¢.
*Wolf's Head** (Wolverine-Empire). 35¢.
Esso No. 3 (Colonial Beacon). 35¢.

NOT ACCEPTABLE

Thin out too rapidly with rise in temperature:

- Midland Co-op* (Midland Co-op. Wholesale). 20¢. (This is not the Midland Pennsylvania oil.)
Ring-Free (Macmillan). 35¢.
Prize (Paragon). 25¢.
Argoil (Argoil). 25¢.
Valor (Texas). 13.8¢ in 2-gal. lots.
Cycol (Associated of Calif.). 25¢.
Guardian (Pure Oil). 15¢.
Sunoco (Sun). 25¢.

WINTER MOTOR OILS

BEST BUYS

- Penn-Rad* 10W. 13.4¢ in 2-gal. lots.

BEST BUYS—CONT'D

- Ward's 100% Pure Pennsylvania 10W.** 17.8¢ plus postage in 5-qt. lots.
Sears' Cross Country SAE 10. 17¢ to 20¢. Cheaper when coupons are used.
Good Penn SAE 10. 18¢.

ALSO ACCEPTABLE

The following met 10W and SAE 10 specifications:

- Gulfpriide 10W.** 35¢.
Kendall 10W. 35¢.
Mobiloil Arctic Special 10W. 30¢.
Penn Co-op 10W. 25¢.
Pennzoil 10W. 35¢.
Shell-Penn 10W. 35¢.
Sinclair Pennsylvania 10W. 30¢.
Tiolene 10W. 30¢.
Veedol 10W. 30¢.
Wolf's Head 10W. 35¢.

The following were a little lower in quality than those listed above:

- Esso Uniflo No. 1.** 35¢.
Golden Shell 10W. 25¢. (Sample purchased in East.)
Havoline 10W. 30¢.
New Texaco 10W. 25¢.

The following met SAE 10 specifications:

- Linco SAE 10.** 25¢.
Midland Co-op SAE 10. 20¢.

The following were misbranded as 10W oils; they met SAE 10 specifications but are not 10W oils. The first three are good buys for SAE 10 oils:

- Travelene 10W.** 16.4¢ in 2-gal. lots.
Co-op 100% Pennsylvania 10W. About 18¢ in 2-gal. lots.
Quaker State 10W. 35¢.
Richfield 10W. 30¢. (Sample purchased in East.)
Valvoline 10W. 35¢.
Co-op 10W. About 13¢ in 2-gal. lots.
Monogram 10W. 30¢.
Argoil 10W. 20¢. Inferior in quality to other oils in this classification.

The following two were high-quality oils, but heavier than

ALSO ACCEPTABLE—CONT'D

SAE 10 oils, and are recommended only where Winters are mild. They were SAE 20:

Hyvis Winter 4. 30¢.

Hyvis Winter 5. 30¢.

The following oils were found to be 10W oils, but did not meet SAE 10 specifications. They are satisfactory for use in climates where the Winters are continuously cold:

A-Penn SAE 10. 13.6¢ in 2-gal. lots.

Opaline 10W. 25¢.

Tydol 10W. 25¢.

NOT ACCEPTABLE

Amoco 10W. 25¢. Inferior in quality. Too great change of viscosity with temperature.

En-ar-co SAE 10. 26¢. Pour point too high.

Gulflube 10W. 25¢. A 10W, but not an SAE 10 oil. Pour point too high for use in very cold weather.

Macy's Re-refined 10W. 13.6¢ in 2-gal. lots. An inferior oil. Not 10W.

Ring-Free SAE 10. 35¢. Too great change of viscosity with temperature. (Claims for special properties should be ignored.)

STORAGE BATTERIES

On accelerated life-test, the three high-priced batteries listed below gave considerably longer and more reliable service than the cheaper ones. But the medium-priced (\$9 to \$11) showed little, if any, superiority over the low-priced (\$6 to \$8). If properly cared for, the high-priced batteries may therefore be economical purchases. For the motorist who abuses his battery, those with a minimum cost per month of guaranteed life will be cheaper, even in the long run.

Common abuses which shorten the life of a storage battery include (1) letting it stand idle; (2) chronic undercharging; (3) continuous overcharging; (4) failure to add water; (5) contamination of electrolyte, most commonly by iron; (6) addition of acid or special battery "rejuvenators."

If your battery gets run down, have it recharged promptly.

To prevent corrosion of the terminals and cables, clean them thoroughly and give them a thin coating of vaseline. Also, keep the top of the battery itself wiped clean.

In cold weather particularly, push in the clutch while stepping on the starter.

If you have battery trouble make sure that the fault does not lie somewhere in the wiring system of the car.

Figures for months and "a-h" (ampere hours) in the ratings give guaranteed life and capacity as specified by the manufacturer. Cases are of rubber (more durable than composition and less likely to crack in cold weather) unless otherwise noted.

Ref.: *CU Reports*, January and March 1938. (Labor notes in January.)

BEST BUYS

Willard WMB-110 (Willard Storage Battery Co., Cleveland). \$15.75. 21 months. 110 a-h. Starting performance excellent. Second longest-lived.

Co-op L-1-F (National Cooperatives, Chicago). \$7.25. 21 months. 100 a-h. Best performance of the lower-priced batteries.

ALSO ACCEPTABLE

Goodrich Kathanode K-FT-51 (B. F. Goodrich Co., Akron). \$21.45. Guaranteed for possession of car. 110 a-h. Starting performance excellent. Longest-lived of batteries tested.

USL RT 1-17 (USL Battery Corp., Niagara Falls, N. Y.). \$14.95. 24 months. 110 a-h. Starting performance excellent. Third longest-lived.

Atlas XL-17 (Standard Oil of Indiana). \$9.25. 18 months. 98 a-h. Composition case.

Exide XL-171S (Electric Storage Battery Co., Philadelphia). \$10.45. 18 months. 100 a-h.

Wizard 17 TV (Western Auto Supply Stores). \$6.55. 24 months. Rated 110 a-h but tested only 98. Acceptable only in view of price.

Ward's Winter King 17-TH Cat. No.—216 (Montgomery Ward). \$6.45 in stores. 24 months. 98 a-h. Acceptable only in view of price.

NOT ACCEPTABLE

Goodyear A 217 F. \$10.45. 21 months. Rated 120 a-h but tested only 113. Short-lived.

Ford Type 40. \$9.90. 18 months. 100 a-h. Composition case cracked in shaking test.

Goodrich 17-21FT Special. \$10.45. 21 months. 90 a-h.

AUTOMOBILE TIRES

One of the chief causes of rapid deterioration and wear of tires is underinflation. Tests made by the Goodyear Co. showed that tires inflated to the recommended pressure of 28 lbs. wore only 75% as fast as those inflated to 22 lbs. It is better to maintain the pressure one or two pounds over that recommended than to have any underinflation.

Claims for special non-skidding properties of various tread designs can be largely discounted. The new "multi-vane" treads produce quiet running and somewhat longer mileage, but, contrary to advertising statements, give some loss of traction and non-skid properties.

The ratings below are based on records made by a government agency of actual mileage reports on 6-ply first-line tires. The relative ranking of 4-ply tires of the same make and grade should not be substantially different. Because of greater resilience, 4-ply tires are better for passenger cars.

List prices of the tires reported on were about \$18 for the 6x16 6-ply tires in October 1938. Because most dealers usually sell tires at a considerable discount, a net price of \$13 is used in calculating the cost per 100 miles. In those cases where larger discounts can be obtained on low ranking tires, such tires will move up accordingly in the ratings.

Ref.: *CU Reports*, October 1938. (Labor notes included.)

BEST BUY

Goodrich (Goodrich Co., Akron, Ohio). 3.9¢ per 100 miles.

ALSO ACCEPTABLE

Century (Mansfield Tire & Rubber Co., Mansfield, Ohio). 4.3¢ per 100 miles.

General (General Rubber Co., Akron). 4.4¢ per 100 miles.

U. S. Royal (U. S. Rubber Prod., NYC). 4.5¢ per 100 miles.

Lee (Lee Rubber & Tire Corp., Conshohocken, Pa.). 4.6¢ per 100 miles.

Goodyear All Weather (Goodyear Tire & Rubber Co., Akron). 4.9¢ per 100 miles.

Dayton (Dayton Rubber Co., Dayton). 4.9¢ per 100 miles.

Diamond (B. F. Goodrich Co.). 5.3¢ per 100 miles.

McClaren (Dayton Rubber Mfg. Co.). 5.4¢ per 100 miles.

Kelly-Springfield (Kelly-Springfield Tire Co., Cumberland, Md.). 5.4¢ per 100 miles.

Firestone (Firestone Rubber Co., Akron). 5.5¢ per 100 miles.

ALSO ACCEPTABLE—CONT'D

Limited data on the following tires indicate relatively short life. Unless available at lower prices than those brands listed above, they may not be economical purchases:

Miller (Miller Rubber Co.). 6.5¢ per 100 miles.

Fisk (Fisk Rubber Corp.). 6.8¢ per 100 miles.

Mohawk (Mohawk Rubber Co.). 6.8¢ per 100 miles.

Dunlop (Dunlop Tire & Rubber Corp.). 9.5¢ per 100 miles.

MAIL-ORDER TIRES

The above ratings did not include mileage data for mail-order tires. CU has made some preliminary tests of these tires but because of the limited number of samples it is impossible to make conclusive recommendations at this time.

Preliminary tests indicate that on a miles-per-dollar basis Sears' second line (*Hercules*) and Ward's first line (*Riverside*) are good buys. Sears' first line (*Companion*) and Goodyear *All Weather* (included in the test for comparative purposes), appear definitely to cost more per mile than the other two.

RETRADED TIRES

Tires may be completely or partially retreaded. A complete retread is most satisfactory—yielding (if well done on an uninjured tire) up to 75% of the mileage obtained from the original tread. Partial retreading (known as recapping) is satisfactory only for light service. Retreaded tires should not be used on the front wheels unless they have been carefully balanced. Drive these at speeds not over 50 m.p.h.

INNER TUBES

Prices of inner tubes vary with localities and dealers. In most cases there is a "list price" and a "selling price." Dealers were found to give "discounts" up to 40% off list price.

The most recent test of tubes was made in August 1937. At that time the *Sears' Allstate Companion Red Tube*, the *Ward's Riverside First Quality Brown Tube*, and the *Regal* (Strauss Stores, NYC and Chicago) were "Best Buys." These and other tubes tested are listed below in order of quality rating (based on a maximum possible score of 100) without regard to price. Ratings apply only to the particular grade tested.

All tubes tested met Federal specifications for inner tubes.

Ref.: CU Reports, Aug.-Sept. 1937.

(Cont'd next page)

172 INNER TUBES

VERY GOOD

- Lee** Bevel Weld Heavy Duty Red (Lee Tire & Rubber Co., Conshohocken, Pa.). Quality score, 94.
Sears' Allstate Companion Red Tube (Sears-Roebuck). Quality score, 89.
Goodyear Heavy Duty (Goodyear Co., Akron). Quality score, 85.
Goodrich Gold and Black Silvertown (B. F. Goodrich Co., Akron). Quality score, 84.

GOOD

- Dunlop** Red (Dunlop Rubber Co., Buffalo). Quality score, 82.
Goodrich Cavalier. Quality score, 82.
General Heavy Duty Molded (General Tire & Rubber Co., Akron). Quality score, 81.
Kelly-Springfield Heavy Duty (Kelly-Springfield Tire Co., Cumberland, Md.). Quality score, 81.
U.S. Royal Heat Resisting Heavy Duty (U.S. Rubber Products, NYC). Quality score, 80.
Goodyear Pathfinder. Quality score, 80.
Armstrong Senior Heavy Red (Armstrong Rubber Co., West Haven, Conn.). Quality score, 80.
Overman Supermatic Heavy Duty (Overman Cushion Tire Co., NYC). Quality score, 78.
Fisk Extra Heavy (Fisk Rubber Co., Chicopee Falls, Mass.). Quality score, 78.
Mohawk Heavy Duty Red (Mohawk Rubber Co., Akron). Quality score, 76.
Regal (Strauss Stores, NYC and Chicago). Quality score, 75.
Atlas (Standard Oil stations). Quality score, 74.
Seiberling Full Molded (Seiberling Rubber Co., Akron). Quality score, 74.
Ward's Riverside First Quality Brown Tube (Montgomery Ward). Quality score, 74.

FAIR

- Revere** (Western Auto Supply Co. stores). Quality score, 71.
Vulcan Heavy Service (Polson Rubber Co., Garrettsville, Ohio). Quality score, 71.
Holland Heavy Duty (Duro Rubber Corp., Flemington, N. J.). Quality score, 66.
Firestone High Speed Heavy Duty (Firestone Tire & Rubber Co., Akron). Quality score, 61.

Household Equipment and Appliances

Section 1 CAN OPENERS

The mechanical can openers now on the market are generally superior to the old-fashioned knife type, which was difficult to use and the cause of many a cut hand. They range in price from 10¢ to \$2, and the basic design of most is the same. A good can opener should be durable, safe, easy to use and so constructed that, in cutting, a minimum amount of metal is deposited in the can. It should open all types of cans—round, square, and beadless (evaporated milk cans). For the last only the *Edlund* models—of those tested—will work.

The cheapest are the hand types, generally costing from 10¢ to 50¢. Because of their low cost they may be good buys. The better types are those which may be mounted on wall or table.

None of the openers tested opened all types of cans with complete efficiency. The *Edlund* was most generally applicable.

Ratings are based on laboratory tests made in February 1939.

Ref.: CU Reports, March 1939.

BEST BUYS

Smooth-Cut (Atlas Ansonia Co., New Haven, Conn.; distrib. Montgomery Ward Cat. No.—2502). \$1.49 plus postage. Wall type. Good on square cans. Replaceable blade.

Dazey DeLuxe (Dazey Churn & Mfg. Co., St. Louis, Mo.). \$1.79. Wall type. Opened square cans, but not satisfactorily.

Vaughan's Safety Roll, Jr. (Vaughan Novelty Mfg. Co., Chicago; 5-&10-cent stores). 10¢. Hand type. An occasional sample will deposit appreciable amounts of metal shavings. A "Best Buy" in view of its low price.

(Cont'd next page)

174 CAN OPENERS, COFFEE MAKERS

ALSO ACCEPTABLE

(In order of quality without regard to price)

- Edlund** Models 4T and 4W (Edlund Co., Burlington, Vt.). \$1.50. Table and wall models. Good on square cans.
- Sears' Bestmade** Cat. No.—2055 (Sears-Roebuck). \$1.49 plus postage. Same opener as *Vaughan's* Model 330, but sold under Sears' brand name rather than manufacturer's.
- Vaughan's Safety Roll DeLuxe** Model 330. \$1.79. Wall type. Replaceable blade.
- Wear-Ever** (Aluminum Cooking Utensil Co., New Kensington, Pa.). \$2.30. Hand type; especially easy to operate. Good on square cans.
- Swing-A-Way** (Steel Products Mfg. Co., St. Louis, Mo.). \$1.31. Wall type. Replaceable blade.
- Dazey Junior**. 79¢. Wall type. Current samples of this model improved over those tested in 1936.

NOT ACCEPTABLE

- Quintuplet** (Cahil Mfg. Co.). 49¢. Pliers type. Poor action.
- A & J Miracle**. 10¢. Pliers type. Cutting edge dulled quickly.
- Vaughan's Safety Roll, Jr.** No. 225. 20¢-25¢. Wall type. Very poor action. Deposited large quantities of metal slivers in the can.
- Dazey Senior**. \$1.49. Wall type. Design changed; recent samples deposited excessive metal in the can.
- Edlund Junior** No. 5. 50¢. Hand type. Acceptable rating no longer justified. Deposited excessive metal.
- J. A. Henckels** (J. A. Henckels, Germany). 75¢. Hand type. Extremely difficult to operate.

COFFEE MAKERS

Experts agree that best results are obtained from a coffee maker in which the ground coffee is in contact with water just below the boiling point for 6 to 10 (preferably about 7) minutes.

Percolators boil the coffee, causing it to lose its more volatile flavor constituents. In the *Silex*-type of vacuum-return coffee makers, the time of brewing varies with the temperature of the room, making uniformity of brewing difficult. Coffee makers of this type and those with china or glass tops are very fragile and require considerable care in their use.

Coffee made by steeping in the pot grows bitter if allowed

to stand too long, and is likely to be muddy. Drip-type coffee makers are best adapted to the making of uniform coffee, if properly constructed. They are also durable, easy to clean and economical.

All-aluminum vessels will not impart an off-flavor to coffee; vessels made of two different metals, however, may do so. Aluminum is both cheaper and more durable than the glass or china vessels. The all-aluminum vessels are in general a much better buy.

Ratings in general are based on 1936 tests plus an examination of some of the new models. Prices are current.

ACCEPTABLE

Drip-Drop (Buckeye Aluminum Co., Wooster, Ohio). \$1.35.

All aluminum. Cup capacity, 6.

Wear-Ever 381½ (Aluminum Cooking Utensil Co., New Kensington, Pa.). \$2.50. All aluminum. Cup capacity, 6.

Dripolator (Enterprise Aluminum Co., Massillon, Ohio). \$1.49; others were available at 60¢ to \$1.85. All aluminum. Cup capacity, 6. Some *Dripolators* have been found to overflow around the coffee basket.

NOT ACCEPTABLE

Visivac (Wessco Mfg. Co.). \$1.98. All glass. Cup capacity, 8. Filter cloth required. Glass pot very fragile.

Tricolator No. 3100 (Tricolator Co.). \$2.98. Aluminum top, china base. Cup capacity, 6. China base easily cracked. Filter papers required. Brewing time excessively long.

Silex, Jr. (The Silex Co.) \$2.95. All glass. Cup capacity, 8. Requires filter cloth. Glass pot too fragile. More expensive *Silex* models receive the same rating.

Porcelier (Porcelier Mfg. Co.). \$1. Aluminum top, china base. Cup capacity, 6. Spout of base poured poorly. Base fragile. Very poor, muddy brew.

Clear-Drip (Aluminum Goods Mfg. Co.). 79¢. All aluminum. Cup capacity, 6. Handle weak. Very poor, muddy brew.

DINNERWARE

China and porcelain dinnerware is vitreous and non-porous. It rings when struck, and thin pieces are noticeably translucent. Almost all true porcelain is manufactured in Europe.

Earthenware, which is cheaper and more common, is porous or has a non-porous glaze over a porous and opaque body. It

176 DINNERWARE, EGG BEATERS

gives a dull sound when struck. The better grades of earthenware have come to be miscalled porcelain or semiporcelain.

In buying dinnerware sets, find out whether the pattern is "open stock" and, if it is, how long the dealer will guarantee availability of pieces for addition or replacement. Pieces in "closed stock" patterns are expensive, and often difficult to obtain at all.

Examine dinnerware for crookedness due to warping; for fine cracks or pinholes in the glaze; for white patches or unevenness in color; for careless application of design, and for noticeable scars on the underside. Pieces with such defects are "second selection"; do not pay first-grade prices for them.

References:

"How to Spend Money," by Ruth Brindze. Vanguard Press, NYC. \$2.

"The Selection of Dinnerware for the Home," by Arthur S. Watts; Engineering Exp. Sta. Circular 21, Ohio State Univ., Columbus, Ohio. 5¢.

EGG BEATERS

The egg beaters listed below were rated on beating speed and effectiveness, shape of handle, sturdiness, resistance to rust, and price.

Ratings are based on laboratory tests made in 1936 and on examination of new samples. Prices are current.

BEST BUYS

Edlund No. 2 (Edlund Co., Burlington, Vt.). 75¢.

A & J Super Center Drive (A & J Kitchen Tool Co., Chicago). 25¢ in 5-&10-cent stores. Plated blades. A good beater, but not rustproof.

ALSO ACCEPTABLE

Sears' Ball Bearing Cat. No.—5278 (Sears-Roebuck). 59¢ plus postage.

Blue Whirl Medium Size (Turner & Seymour Mfg. Co., Torrington, Conn.). Medium size, \$1. Large size, \$1.50. Best beater tested, but high priced.

A & J Super High Speed Beater Cat. No.—1992 (Montgomery Ward). 54¢ plus postage. Also available in other stores. Stainless steel blades. Body and gears plated.

Ladd Ball Bearing (United Royalties Corp., NYC). \$1.25.

ALSO ACCEPTABLE—CONT'D

Stainless steel blades. Plated body. A good beater but high priced.

Turbine (Washburn Co., Worcester, Mass.). 37¢. Effective primarily for beating small quantities. Not rustproof.

NOT ACCEPTABLE

A & J (Woolworth's). 10¢. Two blades. Poor handle and low effectiveness. Flimsy construction.

ELECTRICAL APPLIANCES

Fill in and mail guarantee cards. Save instruction books. Check all new appliances as soon as you get them. Follow the manufacturer's directions for lubrication or other care.

If the appliances won't work, check to see if the outlet is alive. No current at the outlet is usually a sign of a burned-out fuse. Learn how to change fuses yourself. If a defective appliance causes a fuse to blow, do not use it again until it is repaired. Never put tin foil or a penny behind the blown fuse; the fuse is there to prevent the wire from overheating and causing a fire. Replace frayed or broken appliance cords.

As a minimum quality standard, cords should carry the colored band of the Underwriters' Laboratories reading "Underwriters' Lab. Insp. Cord." The significance of the various colors used is as follows:

Yellow—approved lamp cord.

Gold—high quality heater cord.

Red—a somewhat less durable grade of heater cord.

Lamp cord is suitable only for lamps, fans and other appliances using little power. Heater cord should be used on electric irons, toasters, waffle irons, &c. It has heat-resisting insulation, will withstand repeated bending better than lamp cord, and carry heavy currents without overheating. Where the cord set (including the fittings at both ends) is approved, a light blue disk is slipped around the cord reading "Underwriters' Inspected Cord Set."

References:

"Electric Equipment in the Home, Its Care and Repair"; Bulletin No. 72, University of Maryland Extension Service, College Park, Md. Free.

"Safety for the Household"; Circular No. 397, U. S. Dep't of Commerce, Bureau of Standards; available from Sup't of Documents, Washington, D. C. 15¢.

ELECTRICAL APPLIANCES AT DISCOUNTS

Electrical appliances (as well as other household equipment) can very frequently be bought at discounts of from 20% to 40% off list through employee purchasing groups, discount houses and other channels.

Cooperative Distributors, 116 East 16 Street, New York City, a mail-order cooperative described on page 5, is prepared to offer discounts on many standard brands of electrical appliances where prices are not fixed under "fair-trade" laws.

ELECTRIC CLOCKS

Electric clocks of the ordinary type can be used only on alternating current of the proper voltage and frequency. Your local power company can tell you whether its lines are suitable for operating an electric clock.

Except for *Telechron* (General Electric) and *Seth Thomas* models, the electric clocks listed showed little if any better mechanical construction than do ordinary spring-wound alarm clocks. The same movement is generally used for all or most of the models in each line; higher-priced models may have decorative cases or fancy dials. But decorative quality does not enter into the ratings.

Telechron movements, although slightly more noisy than the others, are judged the best of all tested; *Seth Thomas* movements are judged second best. Models listed are currently available at the prices given.

Ref.: *CU Reports*, Aug.-Sept. 1937.

BEST BUYS

General Electric (General Electric Co., Bridgeport, Conn.).
F and H Series.

Telechron (Warren Telechron Co., Ashland, Mass.). F and H Series.

Both the above have same movements. Minimum price is \$2.95. Self-starting non-alarms with lost-time indicator, and buzzer-type alarms, self-starting with lost-time indicator.

Westclox Country Club. (Westclox div., General Time Instruments Co., La Salle, Ill.). \$2.50. Buzzer-type alarm, manual-starting. Similar in most respects to *Ben Bolt* below, but tips over easily and has breakable glass crystal.

ALSO ACCEPTABLE

(In order of value)

Westclox Ben Bolt. \$3.45. Buzzer-type alarm, manual-starting.**Seth Thomas** (Seth Thomas Clock Co., Thomaston, Conn.).

\$5.95 and up. Non-alarm models, self-starting, with no lost-time indicator. Superior mechanical construction.

Hammond Courtier (Hammond Clock Co., Chicago). \$4.95.

Others at \$3 and up. Buzzer-type alarm, manual-starting.

Westclox Ben Franklin. \$5.95. Non-alarm, self-starting with no lost-time indicator. Primarily a decorative clock.**Hammond Chancellor.** \$9.95. Same movement as *Courtier* but has no alarm. Large decorative case. Other non-alarm models, including kitchen clocks, \$3 and up.

ELECTRIC FANS

Ten-inch fans produce a much stronger current of air than the eight-inch and use very little additional electrical energy. Fans with safety blades, made of cloth or rubber, although somewhat higher priced, are less dangerous for use around children. Fans which vibrate excessively will probably be short-lived.

All fans except the *Signal* 450A are for a-c current only, and create no radio interference.

The following ratings are based on strength of air current produced; electrical energy consumption, efficiency (air current strength per unit of electrical energy consumed), adequacy of guard, especially at the back of the fan, electrical insulation, bearings and provision for their lubrication, and noise.

Prices given are those in effect at time when tests were made. The "Best Buy" is such only if obtainable at approximately the price listed or less.

Ref.: *CU Reports*, July 1937.

8" NON-OSCILLATING AND "SAFETY"

BEST BUY

Robbins & Myers List No. 914 (Robbins & Myers, Springfield, Ohio). \$3.45. Highest output (breeze production) for fans of this size. Considered best quality of 8-inch fans tested.

(Cont'd next page)

ALSO ACCEPTABLE*(In order of quality without regard to price)*

General Electric Model 27 X 840 (General Electric Co., Bridgeport, Conn.). \$4.60. Second-best quality of 8-inch fans tested.

Westinghouse Model 8SFN3 (Westinghouse Electric & Mfg. Co., Springfield, Mass.). \$3.95.

Diehl Ribbonaire Model 15 (Diehl Mfg. Co., Elizabethport, N. J.). \$9.95. Ribbon-type "safety" blades. Neither this fan nor the *Safe-flex*, rated below, is considered desirable as compared with others higher in the list, except for safety.

Samson Safe-flex Model 989 (Samson United Co., Rochester, N. Y.). \$3.95. 6-inch diameter. Soft-rubber "safety" blades, judged to give fair protection to user.

Coolspot Model 218 (Signal Electric Mfg. Co., Menominee, Mich.). \$3.

Emerson Model 3140-B (Emerson Electric Mfg. Co., St. Louis). \$3.50.

Polar Cub Model A 18 (A. C. Gilbert Co., New Haven, Conn.). \$1.39. Output good; guard inadequate. A good buy only in view of the low price.

NOT ACCEPTABLE

Diehl Model 8012. \$3.75.

K-M Moderne Model L-21 (Knapp-Monarch Co.). \$1.29.

Master Model 3110 (Master Electric Co.). \$2.77. Showed electric insulation failure under high-voltage test.

10" OSCILLATING

In this group, in contrast to the previous group, higher price bought better quality.

ACCEPTABLE*(In order of quality without regard to price)*

General Electric Model 49 X 723. \$16.50.

Westinghouse Poweraire Model 10SQ3. \$16.95.

Robbins & Myers Model 5404. \$14.45.

Westinghouse Model 10SF3. \$12.95.

General Electric Model 42 X 548. \$12.95.

Emerson Model 2250-B. \$12.95.

Signal Model 450A. \$12.75. The only ac-dc fan tested. Output and efficiency fairly high. Advised only for those who need a universal current fan.

ELECTRIC FOOD MIXERS

An electric food mixer is seldom a wise purchase for a family that does little heavy cooking or baking. Occasional small mixing jobs can probably be done just as easily by hand.

Several of the mixers were found to present serious shock hazards under ordinary use conditions. Since mixers are usually used near the stove or the kitchen sink, the shock hazard is of special importance, and CU does not recommend the use of any of those rated unless the frame of the appliance is grounded to water or steam pipe.

Not included in the test were mixers made by the Hobart Mfg. Co., Troy, Ohio and sold under the name *Kitchen Aid* at prices ranging from \$49.50 to \$96.50 (a wide range of attachments is available). Information at hand indicates high durability and efficiency. But purchase is not justified except where first cost is a minor consideration, and where it is expected the mixer will receive considerable use.

Attachments were not included in CU's test. The selection of a mixer should be based upon the performance and durability of the mixer itself.

Ref.: *CU Reports*, October 1938.

ACCEPTABLE

Hamilton Beach Model D (Hamilton Beach Co., Racine, Wis.). \$21. Sample tested showed slight possibility of shock hazard. A "Best Buy" if provision is made for grounding the motor frame when in use.

Sunbeam Mixmaster Model 3A (Chicago Flexible Shaft Co., Chicago). \$21. Shock hazard excessive, especially when running at low speeds.

Universal Model E 891 (Landers, Frary & Clark, New Britain, Conn.). \$18.95. Small, low-powered motor which slows down considerably when mixing stiff batter. Power at medium and high speeds adequate for most operations. Inconvenient because motor must be turned upside down to attach juice extractor. Lowest shock hazard of those tested.

General Electric Model 159 DM 4 (General Electric Co., Bridgeport, Conn.). \$21. Handle is not fastened rigidly to motor frame; some instability, particularly under heavy loads or when used as a portable mixer. Satisfactory on shock hazard.

Westinghouse Cat. No. FP-3 (Westinghouse Electric & Mfg.

ACCEPTABLE—CONT'D

Co., Mansfield, Ohio). \$26.95. Has highest current consumption and most powerful motor of any mixer tested. Some wear in drive shaft bearings on endurance test, with leakage of grease. Shock hazard of sample tested somewhat high under certain conditions of operation.

NOT ACCEPTABLE

Ward's Bettermix Cat. No.—5050 (Montgomery Ward, mail order only). \$15.95 plus postage, including juice extractor. Materials and workmanship somewhat below average. Excessive shock hazard.

ELECTRIC HEATING PADS

Contrary to general belief, most ordinary electric heating pads provide only a different *rate* of heating with each position of the switch; final operating temperature, when the pad is covered, is about the same at the low setting as at the high.

Only three pads were found to give adequate protection against electric shock (see below). Cloth pads should *never* be used without rubberized covers, and those not equipped with such covers are "Not Acceptable" under any conditions. Electric heating pads should never be left with helpless invalids or small children or sleeping persons.

Ref.: *CU Reports*, April 1938.

ACCEPTABLE

(In order of quality, without regard to price)

The first two pads are apparently identical except for surface design; all-rubber, well constructed; adequate protection against electric shock hazard. Should be discarded when the rubber cracks or splits.

Safety-Heat (United Drug Co.; distrib., drugstores). \$7.50.
Electro-Sheet¹ (Seamless Rubber Co., New Haven, Conn.). \$6.95.

Samson Wetproof No. 520, **Macy's Wetproof** No. F5 (Samson-United Corp., Rochester, N. Y.). \$3.95. Rubberized cloth surface. Somewhat less protection against electric shock than the all-rubber types above; like them it will deteriorate

¹ Available from Cooperative Distributors, Inc., 116 E. 16th St., NYC.

ACCEPTABLE—CONT'D

with age. Only pad tested which gave lower temperatures on low heat than on high and medium.

Cloth-surface pads, "Acceptable" only if at all times used with the rubberized envelopes with which they are supplied.

Westinghouse WP 164 (Westinghouse Electric & Mfg. Co., Mansfield, Ohio). \$4.95. Durable terry-cloth surface pad, well constructed. Note caution above.

Ward's Fireproof Cat. No.—5287 (Montgomery Ward). \$3.75 plus postage. Less well built and less durable than **Westinghouse** above; same caution.

NOT ACCEPTABLE

The first four are cloth-type pads and showed excessive shock hazard when used without rubberized covers.

GE Hotpoint Downy (General Electric Co.). \$3.95. Excessive temperatures on all heats. Removable rubberized cover.

Universal E 9846 (Landers, Frary & Clark). \$3.50. Excessive temperatures on all heats. Had rubberized cover.

Mastercraft (chain drugstores). \$1.98. No rubberized cover.

Moderne L-18 (Knapp-Monarch Co.). \$1.98. No rubberized cover. Excessive temperatures on all heats.

Safe-T (Direct Sales Co.). \$1.50. Stiff varnished cardboard surface. *No thermostats.* Tests showed excessive temperatures under conditions of ordinary use.

ELECTRIC IRONS

Tests of electric irons are completed as this *Buying Guide* goes to press, with the report scheduled for the May 1939 issue of *CU Reports*.

LIGHT BULBS

"Better Light—Better Sight" advertising to the contrary, an illuminating intensity of 5 to 10 foot-candles, with the combination of direct and semi-indirect illumination frequently used in homes, is adequate for ordinary reading for persons with normal vision. With the types of lamps common in most homes, higher intensities may produce sufficient glare to cause marked eyestrain.

(Cont'd next page)

184 ELECTRIC TOASTERS, WAFFLE IRONS

The following table gives the distances at which light bulbs of various sizes must be placed from reading matter to give an illuminating intensity of about 10 foot-candles.

SIZE OF BULB IN WATTS	DISTANCE IN INCHES
25	19
40	26
50	33
60	37
100	56

Remember that the cost of the bulbs themselves is less important than the cost of the electricity they use. Many Japanese and other cheap bulbs have such low efficiencies that they are exorbitantly expensive to use, despite their low original price.

References:

"Lighting Your House," *CU Reports*, October 1938.

"Cautions Concerning Illumination Intensities Used for Reading," by Dr. Miles A. Tinker; *American Journal of Optometry*, February 1935.

ELECTRIC TOASTERS

New tests of electric toasters are under way as the *Buying Guide* goes to press. This subject was previously reported on in the *CU Reports* for November 1936.

ELECTRIC WAFFLE IRONS

Although \$5 will buy a satisfactory iron, most of the good ones cost considerably more. At \$3 or less the iron probably will be poor both electrically and mechanically. A good waffle iron should bake properly, should be mechanically durable, free of shock hazard and so designed that handles and base will not overheat.

Automatic temperature control of the waffle iron by an adjustable thermostat is a definite convenience, and simplifies the problem of baking uniform waffles. "Heat indicators" on some non-automatic irons indicate with more or less accuracy whether the iron is hot enough for baking waffles. A few irons have no indicator of any kind. If they are not carefully watched, non-automatic irons may overheat and damage the

grid or the table top. The automatic models rated below are high priced, but in each line there are similar models—with heat indicators only—available at considerably lower prices.

Unless otherwise indicated, all automatic models tested may be used on 110- to 120-volt electric lines, a-c only. Non-automatic irons may be used on any current of the correct voltage.

Prices are manufacturers' list prices and ratings are based on quality in relation to price.

Ref.: *CU Reports*, May 1938.

BEST BUY

Proctor Model 1516 (Proctor Electric Co., Philadelphia). \$9.95. 700 watts. Fully automatic. Model 1517, at \$8.95, is essentially the same except for trim and handles.

ALSO ACCEPTABLE

(In order of merit)

Westinghouse WSA14 (Westinghouse Electric & Mfg. Co., Mansfield, Ohio). \$9.95. 1,000 watts. Fully automatic.

Universal Model 7424 (Landers, Frary & Clark, New Britain, Conn.). \$8.95. 660 watts. Fully automatic.

NOT ACCEPTABLE

General Electric 129Y193 (General Electric Co.). \$9.95. 660 watts. Fully automatic. Temperature range extreme and adjustment very critical. Apparently poor thermostat design.

Superior Series No. 766 (Superior Electric Products Corp.). \$3. 660 watts. Mechanical construction poor.

Handyhot Type AF (Chicago Electric Mfg. Co.). \$1.

JUICE EXTRACTORS

Fruit juicers are of two general types, reamer and pressure. The simplest and cheapest of the reamer type is the one-piece glass saucer with conical center, costing from 10¢ to 25¢. It is satisfactory where use is infrequent and little fruit is squeezed at a time. Do not buy the two-piece sets with a glass extractor having slots through which the juice drains into a glass bowl. The slots clog and chips of glass can fall into the juice unnoticed.

Reamer-type extractors are less desirable than the pressure type because they are somewhat less convenient, slightly more

difficult to clean and deliver slightly more pulp with the juice. They do, however, yield more juice.

There are two kinds of pressure juicers. In one the fruit is squeezed between two jaws and in the other it is forced down over a cone. The former is somewhat more convenient and better adapted to all citrus fruits. However, it crushes the fruit to the extent that some of the oils are forced out of the outer skin and along with other materials, such as dirt and coloring matter, may be carried into the juice. Fruits should be thoroughly washed before squeezing in this type.

The following ratings are based on laboratory tests made in February 1939.

Ref.: *CU Reports*, March 1939.

BEST BUYS

Any good one-piece glass extractor (hand type). 10¢ to 25¢.
Juicerette (Bridgeport Casting Co., Bridgeport, Conn.). \$1.

Jaw pressure type.

Super Juicer (National Die Casting Co., Chicago). \$1.49.

Gear pressure type. Sold by Sears-Roebuck under Cat. No. —2019 and by Montgomery Ward under Cat. No.—1683.

ALSO ACCEPTABLE

(In order of quality without regard to price)

Juice-O-Mat (Rival Mfg. Co., Kansas City, Mo.). \$2.95. Gear pressure type. Most efficient of this type tested.

Universal Model No. 40 (Landers, Frary & Clark, New Britain, Conn.). \$2.60. Jaw pressure type. Best adapted of those tested for squeezing large fruits.

Juice King (National Die Casting Co.). \$2. Gear pressure type.

Wear-Ever (Aluminum Cooking Utensil Co., NYC). \$2.95. Jaw pressure type. Considerably over-priced.

Crest Juicer (Crest Co., Chicago). \$2. Gear pressure type.

Dazey Speedo Super Juicer (Dazey Churn & Mfg. Co., St. Louis, Mo.). \$1.89. Reamer type; attaches to wall.

NOT ACCEPTABLE

Rival (Rival Mfg. Co.). \$1.29. Jaw pressure type. All-aluminum die casting. Poor workmanship and design. Inefficient.

Lorraine Orange Juice Extractor (Lorraine Metal Mfg. Co.). 50¢. Squeezing parts not rust-proof. Inefficient.

NOT ACCEPTABLE—CONT'D

Handy Andy (Handy Andy Specialty Co.). \$1.20. Reamer type. Cheap, flimsy construction.

SILVERWARE

The terms "solid" or "sterling" silver are used synonymously. The composition of such silver is fixed by law (92.5% silver, plus copper). Consequently the value of the metal in sterling table silver depends solely upon its weight.

Better grade silver-plated forks and spoons may be stamped to indicate thickness of the silver plating. Grades, in declining order of thickness, are:

Quadruple or XXXX

Triple or XXX

Double or XX

AA

A1+ or Extra

A1 (note that "A1" is the *lowest* established grade).

Further special designations may be used to indicate reinforcement of the plating at points of greatest wear.

Knives are graded by the number of pennyweights of silver per dozen dinner knives. But the grades of the spoons and forks usually characterize the entire set.

Terms such as "Nickel Silver," "German Silver," "Liberty Silver" or "Silverene" are misleading, since they describe products which contain no silver.

Ref.: "How to Spend Money," by Ruth Brindze. Vanguard Press, NYC. \$2.

THERMOMETERS

Two general types of thermometers are in common use. The familiar mercury- or alcohol-in-glass thermometer is one. The other is the bimetallic strip thermometer in which the difference in the rate of expansion of two metals causes a pointer to move over a circular scale.

A liquid-in-glass thermometer will in general be more accurate, but if it is not properly aged before calibration it will give incorrect readings which will get progressively worse during the first few years of its life; the error may amount to several degrees. When buying a thermometer, particularly a

188 THERMOMETERS, BEDSPRINGS

cheap one, select one that registers about the average of others displayed close by. In the liquid type, make sure there is no gap or bubble in the liquid column, and that the glass tube is firmly fastened to the scale.

REFRIGERATOR

Thermometers responding slowly to change of temperature are preferable, for they will not be immediately affected by the draft of warm air that enters the refrigerator when it is opened. A liquid-in-glass thermometer enclosed in an outer glass case or a bimetallic strip thermometer is best.

CLINICAL

These are mercury-in-glass thermometers which differ from those designed for other uses in that they continue to read the highest temperature reached until "shaken down."

Buy a clinical thermometer accompanied by a certificate stating that it meets *all* the requirements of Commercial Standard CS1-32, U.S. Dep't of Commerce, and that the manufacturer has on file a record of test. Such a thermometer need not cost more than 75¢.

Section 2

BEDSPRINGS

The "Best Buys" in springs are closer to the lower price levels than to the upper. Flat or "wire fabric"-and-link bedsprings are the cheapest available. Still better flat types are those in which the "fabric" is made of twisted wire cables instead of plain wire. They are much less inclined to sag, at least for a time. Flat springs are not recommended for use under an innerspring mattress.

The most satisfactory and durable bedsprings available at any price are probably open-coil springs of the "double-decked" type with heavy coil ties and stabilizers to prevent side sway. They should be covered with a thin pad to prevent excessive wear of the mattress tick. While open-coil springs are not so flexible as fine box springs, they will generally outlast stock models, and they can be used under any kind of mattress. The standard price for such springs is \$19.75, and several makers guarantee them for 20 years. In all likelihood,

if they are not abused, they will last much longer than that.

Box springs consist of an upholstered spring enclosed in a wooden frame. The cheaper ones, retailing up to \$40, are generally not a good investment. They are from six to seven inches high, are apt to have too little upholstery and too few (65 to 75) springs, with few coils. A good box spring is nine or more inches high, well upholstered, soft and resilient, with 80 or more coils which cannot be felt through the padding. The surface is tufted to keep the upholstery in place. Such a spring costs \$50 to \$70, depending on the grade of upholstery, and will remain silent in use for years.

A few widely distributed springs of good quality are listed here. Prices given are for standard sizes. Springs of special sizes usually cost more.

Ref.: *CU Reports*, May 1938.

ACCEPTABLE

OPEN-COIL SPRINGS

Rome "DeLuxe" (Burton-Dixie Corp., Chicago). \$19.75.

Baked enamel finish.

Ace (Simmons Co., NYC). \$19.75. Aluminum finish.

BOX SPRINGS

Chas. H. Beckley Co., NYC. Models from \$39.50 to \$49.50.

Owen springs, properly tied. Spruce frames. White felt upholstery.

Spring-Air No. 40 (Chas. A. Karr Co., Holland, Mich.).

\$39.50. Owen springs, good quality, carefully assembled.

Spruce frames. Upholstery satisfactory but not exceptional.

FLAT SPRINGS

Way-Sagless (Way Sagless Spring Co., Minneapolis). \$14.95.

Flat spring, twisted wire cables, high block. Recommended only with solid mattress.

ELECTRIC RANGES

Drawers and doors should move smoothly and close tightly. Sheet-metal panels should not "give" excessively. Legs should be sturdy and solidly attached. Beware of shakiness or flimsy construction. Look for cracks and corners in which grease and dirt may collect. Porcelained surfaces wash off easily, of course. But notice what will happen when things spill or boil

over, and discover for yourself whether surface and oven burners can be removed easily for cleaning.

The oven should be well insulated and all joints should be tight. "Rack stops" and broiling stops are desirable. Check the operation of all controls—the fewer and more convenient the controls necessary for any operation, the better.

Ask to see the Underwriters' Laboratories' seal, or other proof of their approval. Although their requirements deal primarily with safety from fire hazard, safety for the user is covered incidentally. Make sure that the electrician installing the range makes the proper connections to ground to eliminate hazard of electric shock.

Calrod units used 15% to 20% less electricity than other types in bringing water to a boil, and were correspondingly faster than the others. Superiority is not so great in longer cooking operations, where absorbed heat figures less as a factor. Other data available to CU indicate that the Calrod units are relatively long-lived, as well as efficient. (These units are of the enclosed type.) Except for the Calrod unit, neither open nor enclosed units were consistently more economical. The open type is, however, definitely harder to clean and, since the heating wires are exposed, more susceptible to injury or corrosion. Hence, the more expensive enclosed units may be worthwhile in the long run.

Buy only those accessories which you will need. Most of the extra gadgets are unnecessary, costly and do not contribute to efficiency or economy.

Prices given are New York City retail list prices at time of test; they do not include costs of installation. These should be checked before making the purchase.

Ref.: CU Reports, April 1938.

BEST BUYS

Universal Model E5346 (Landers, Frary & Clark, New Britain, Conn.). \$109.50 with 4 open units; about \$20 extra for enclosed Chromalox units. Oven fastest in preheating and highest in efficiency of all those tested.

Sears' Prosperity Model 300 (Sears-Roebuck). \$109.95 with 4 Chromalox enclosed units. Claimed to be same as Cat. No.—1916, \$79.95 plus shipping charges; Cat. No.—1914, \$69.95 plus shipping charges, same but with open units. Oven of average efficiency, and largest tested.

ALSO ACCEPTABLE

Hotpoint Model 581RA41 (Edison General Electric Appliance Co., Chicago). \$141.50 with 4 Calrod enclosed units, most efficient type of surface unit tested. Oven preheated rapidly, but was only average in efficiency.

L&H Model 8710 (A. J. Lindemann & Hoverson Co., Milwaukee). \$146 with 3 Calrod enclosed units and well-type cooker; \$136 with open units. Oven efficiency average.

Westinghouse Model BM64 (Westinghouse Electric & Mfg. Co., Mansfield, Ohio). \$163.25 with 3 Corox enclosed units and well-type cooker; about \$20 cheaper with 4 open units. Has one "Economizer" unit, adjustable to low "simmering" heat. Oven efficiency average. Switch positions marked on knobs. Corresponding 1938 Model—BK64, \$166.50—has 3 Corox units including an "Economizer" 4-heat unit, and a well-type cooking unit.

A-B Model E-3736 (A-B Stoves, Inc., Battle Creek, Mich.). About \$125 with 4 open units; about \$20 extra for enclosed Chromalox units. Oven efficiency below average. No upper heating element for baking.

Estate Model 1674 (Estate Stove Co., Hamilton, Ohio). \$137.50 with 4 open units; \$157.50 with Chromalox enclosed units. Oven below average in efficiency.

FURNITURE

While CU gives no brand ratings of furniture, the following information will help the buyer make a selection.

WOODS

Mahogany—is probably the commonest and the choicest; it is durable and usually beautifully figured. In modern furniture it is almost always used in veneer, and, especially in lower-priced pieces, often on soft woods. Birch and gumwood are finished to imitate mahogany and may also replace it in exposed solid portions of mahogany-veneer furniture. "Philippine mahogany" is an inferior wood not even related to genuine mahogany but often sold as such.

Walnut—is likewise a beautiful and durable furniture wood, used customarily in veneer, often on soft woods in cheaper furniture. Gumwood and other inferior woods are frequently given a walnut finish and used with or substituted for it. "Oriental walnut," "Australian walnut," "Queensland walnut,"

and "African walnut" are not true walnut although often represented as such.

Oak—is of two types, white and red. The white oak is superior, but it is seldom found any more except in expensive furniture. The red oak tends to split and check or crack. Oak is used both solid and in veneer, and is especially suited for massive pieces.

Maple—is of two types—hard and soft. Hard is more desirable and more abundant. It is generally used solid, but special figures such as bird's-eye and curly maple are highly prized for decorative veneering.

Birch—is a durable hardwood, often with attractive grain. It is frequently substituted for maple, and may be given mahogany or even walnut stain, although it is a desirable wood for furniture in its own right. It is used in veneer as well as solid.

Gumwood—is softer and weaker than the woods discussed above and less desirable for solid parts or exposed surfaces, though it is satisfactory for the "cores" or inner layers of veneering.

ALL-WOOD FURNITURE (CASE OR CABINET GOODS)

Solid Wood vs. Veneer—Veneering is stronger than solid wood, and, since cheaper wood may be used in the "core," is lower priced. Properly applied veneer does not crack or warp, but the cheaper grades may peel if they become damp.

Solid wood can be turned and carved, and furniture made of it can be refinished repeatedly. It is, however, susceptible to warping, twisting, and cracking, especially where subjected to extremes of humidity as in heated homes.

Construction—Better-grade furniture is assembled with dowels or tongue-and-slot joints, and with carefully fitted blocks for support in corners. Drawers have deep, close-fitting dovetailing at the back as well as at the front.

In low-grade furniture, the parts may be nailed or insecurely screwed together, perhaps with shallow grooved and beaded joints. Corner-blocks are often poorly fitted, and dovetailing in drawers is shallow and loose-fitting. Soft wood which tends to split may be used in hidden structural parts.

Inspect the under side of furniture for evidence of quality of construction. See that drawers slide easily with no tendency to bind. Make sure that the piece rests squarely on a flat floor without teetering.

Finish—Proper finishing involves staining the piece first and then covering it with lacquer, varnish, wax, or other finishing materials. The finishing coats must be carefully and thoroughly rubbed down after application. Cheap pieces may merely be given a spray of lacquer, tinted to give the color which should be imparted by staining. A light blow from a coin will crack such a crust of lacquer, revealing the natural color of the wood beneath. Properly finished furniture has a satiny luster; cheaply finished furniture is glossy.

UPHOLSTERED FURNITURE

Construction—The same guides to quality apply to the frames of upholstered furniture as to the all-wood furniture just discussed. For durability, frames should be of hardwood, carefully and securely joined.

Springs—Should be resilient, with many coils or turns, and placed close together but not touching. In better-quality furniture they are supported on closely interwoven strips of strong webbing. Avoid furniture with sleazy, loosely woven webbing strips, insecurely tacked, and spaced wide apart.

Stuffing—Springs should be covered with a layer of stuffing, for the various grades of which see "Mattresses," page 197. In the best-quality furniture the stuffing may consist of fine-quality horsehair, over which is placed a layer of cotton felt, the whole being covered with high-grade muslin before the upholstery fabric is applied.

Many States require that labels be attached to every piece of upholstery, stating the percentages of various materials used and whether new or secondhand. All sorts of reclaimed, often unsanitary, material is found in upholstery stuffing, and a written guarantee should be required covering the materials used and their cleanliness.

Cushions—See "Pillows," page 199 for the grades of material used in cushions.

Cover Materials—For durability, upholstery fabrics should be closely woven of tightly twisted yarns. Silk and wool materials are more durable than cotton or rayon. Durable but expensive fabrics include mohair and silk velours or velvets; mohair, wool, and silk friezes; silk rep; and wool tapestry. Damask and brocade-type materials are less durable. Medium-priced and medium-quality materials include cotton and linen friezes, corduroy, cretonne and chintz. Among the satisfactory inexpensive fabrics are the better denims, cotton reps, and cotton tapestry. Cotton velours or velvets are not durable.

(Cont'd next page)

194 FURNITURE, HEATING EQUIPMENT

Rayon may be used with other fibers in good-quality upholstery fabrics, especially for decorative effect. But avoid "novelty weaves" with long floating threads to catch or wear away under abrasion.

Good-quality top-grain leather makes a very durable upholstery covering over good-quality stuffing. "Splits," or layers of leather which have been split off from the flesh side, are inferior in durability, as are imitation leathers.

References:

"Your Money's Worth in Furniture," by Florence E. Wright and Charlotte W. Brennan; Extension Bulletin 297, N. Y. State College of Home Economics, Ithaca, N. Y. Free.

"Furniture, Its Selection and Use"; National Committee on Wood Utilization, Dep't of Commerce; available from Sup't of Documents, Washington, D. C. 20¢.

"Recognizing Suitable Furnishings," by Gertrude Reis; Extension Course Notes 116, Michigan State College, East Lansing, Mich. Free.

"Refinishing Old Furniture," by Florence E. Wright; Extension Bulletin 295, N. Y. State College of Home Economics, Ithaca, N. Y. Free.

"Reconditioning Furniture," by Florence E. Wright; Bulletin 256, N. Y. State College of Home Economics, Ithaca, N. Y. Free.

HEATING EQUIPMENT

Ratings and discussion of heating equipment, including warm-air furnaces for coal and oil, and boilers for coal and oil firing, appeared in the *CU Reports* for September 1938. Ratings of automatic heating equipment, oil burners and coal stokers, appeared in the October 1938 issue. Oil-burning room heaters and range burners were rated in November 1938. (Each issue, 25¢ per copy from CU.) Because of the extensive background of information needed for an intelligent choice, the many conditions attaching to the home owner's purchase of such equipment, and the heavy expense involved, no ratings are given here. The original *Reports* articles should be read carefully.

Additional References:

"Oil Burners for Home Heating"; Dep't of Agriculture Circular No. 406; Sup't of Documents, Washington, D. C. 5¢.

"Warm Air Furnaces and Heating Systems," Part VI; Engineering Exp. Sta., Urbana, Ill., Bulletin No. 266. \$1.

HOME MAINTENANCE AND CONSTRUCTION

Starting in the January 1938 issue of the *Reports*, a series of articles on housing covered the following subjects: Buying, Building or Renting (January); Selection of Site, Plan of House (February); Building Industry, Architects, Engineers, Contractors, Guarantees (March); Building and Structural Materials (April); Finishes, Flooring, Trims and Paints (May); Roofing Materials, Flashings, Windows, Doors (June); Insulation, Weatherstripping (August); Illumination, Wiring and Fixtures (October).

The references listed below cover various aspects of home maintenance and construction. References marked with an asterisk should prove especially useful to home owners. See page 7 for information on the ordering of government publications.

GENERAL

"Principles of Planning Small Houses"; Technical Bulletin No. 4, Federal Housing Administration, Washington, D. C. Free. Recommends standards of construction and equipment and gives estimates of cost.

"Recent Developments in Dwelling Construction"; Technical Division, Federal Housing Administration, Washington, D. C.

"Recommended Minimum Requirements for Small Dwelling Construction"; U. S. Bureau of Standards; available from Sup't of Documents, Washington, D. C. 15¢.

"How to Judge a House"; National Committee on Wood Utilization; available from Sup't of Documents, Washington, D. C. 10¢.

"Publications of Interest to Suburbanites and Home-Builders. Price List No. 72"; available from Sup't of Documents, Washington, D. C. Free.

*Home Information Service Bulletins; published bi-monthly by *Better Homes in America*, Purdue University, Lafayette, Ind. \$2 a year. These discuss the costs of experimental houses built by the University and other matters of interest to home owners or builders.

"More House for Your Money," by Elizabeth Gordon and Dorothy Ducas. William Morrow & Co., NYC. \$2.50.

(Cont'd next page)

INSULATION

*"House Insulation, Its Economics and Application"; National Committee on Wood Utilization; available from Sup't of Documents, Washington, D. C. 10¢.

*"The Insulation of New and Old Houses"; National Development Bureau, Ottawa, Canada.

LUMBER

*"Selection of Lumber"; Farmers' Bulletin No. 1756, U. S. Dep't of Agriculture; available from Sup't of Documents, Washington, D. C. 5¢.

*"Wood Handbook"; Forest Products Laboratory, Madison, Wis.; Sup't of Documents, Washington, D. C. 35¢.

*"Grade Marking of Lumber for the Consumers' Protection"; U. S. Dep't of Commerce; available from Sup't of Documents, Washington, D. C. 10¢.

"The Physical Properties of Lumber," by G. F. Ivey, Southern Pub. Co., Hickory, N. C. \$1.50.

ROOFING

"Roof Coverings for Farm Building and Their Repair"; Farmers' Bulletin No. 1751; available from Sup't of Documents, Washington, D. C. 5¢.

FLOORS

*"Floors and Floor Coverings"; Farmers' Bulletin No. 1219.¹

*"Floors—Their Finish and Care"; Extension Bulletin No. 49, Extension Service, New Jersey State College of Agriculture, New Brunswick, N. J.¹

"Floor Finishing," by Mary B. Settle; Circular E-313, Virginia Agricultural and Mechanical College and Polytechnic Institute, Blacksburg, Va.

"Preventing Cracks in New Wood Floors"; U. S. Dep't of Agriculture Leaflet No. 56; available from Sup't of Documents, Washington D. C. 5¢.

PLUMBING

"Recommended Minimum Requirements for Plumbing"; Bureau of Standards; available from Sup't of Documents, Washington, D. C. 35¢.

¹ Out of print. Copies available in some libraries.

MATTRESSES

Few States have laws forbidding the use of secondhand materials in bedding. Where there is no guarantee printed on a tag fastened to the mattress, consumers should demand a written guarantee from the dealer that the contents are new and clean.

A good-grade cotton felt mattress is the "Best Buy" under \$20. Do not buy *unfelted* cotton. Grades of cotton felt depend on the lengths of the cotton fibers which are felted together and the amount of impurities (sand, grit, grease, &c.) present.

A cheap hair mattress is not a good buy. The highest grade and most expensive hair filling is made of long curled white mane drawings imported from South America. Chief adulterants used with the long curled horsehair are cattle hair (from which it is difficult to remove the odor) and hog hair, which is short and stiff. Be sure to get a guarantee of the percentage or weight of each *kind* of hair present, and a statement that the hair has been properly sterilized. Good-grade hair mattresses are both comfortable and durable, but expensive.

Innerspring mattresses are in high demand for their soft comfort. Cheap ones, however, selling below \$20 to \$25, are seldom worth buying.

The most durable tickings are 8-ounce ACA blue-and-white striped drills. Avoid raw cotton tufts.

A few of the many brands and types of innerspring mattresses are rated. Ratings are based chiefly on the durability of the innerspring units used. Prices given are for the double-bed size. Mattresses of other than standard sizes properly warrant extra charges.

Ref.: *CU Reports*, April 1938.

BEST BUY

Spring-Air (Spring-Air, Holland, Mich.). \$29.50 to \$39.50.
Guaranteed for 5 to 15 years, depending upon the price.

ALSO ACCEPTABLE

Stearns & Foster Co., Cincinnati. One of the better makers of "promotional" and "special sale" bedding. Sells under private brand names (e.g., *Lady Fair*).

Quali-Rest (Quality Mattress Co., Rochester, N. Y.). \$42.50.
Removable ticking and pads.

(Cont'd next page)

198 MATTRESSES, PILE RUGS

ALSO ACCEPTABLE—CONT'D

Honor-Bilt (Honor-Bilt Products, Philadelphia).

Beautyrest (Simmons Co.). \$39.50. Recent tests by independent laboratories indicate that this model of the Simmons Co. is now of acceptable quality.

NOT ACCEPTABLE

Palmer Quilted (Palmer Bros. Co.). \$39.50. These mattresses all have the same patented quilted top but are made on a variety of spring units and cannot, therefore, be consistently recommended.

The following contained poorly assembled spring units:

Imperial (Englander Spring Bed Co.). \$39.50. This company has been cited by the Federal Trade Commission for fictitious and misleading price policies.

Slumber King (Simmons Co.). \$24.50.

Deepsleep (Simmons Co.). \$29.50.

PILE RUGS

Carpets and rugs are classified by weave. The most common weaves of rugs with cut-pile surfaces are the Wilton, the Axminster and the Velvet (the term "Wilton-Velvet" is a misnomer). Of these the Wilton is the most expensive, the Axminster next, and the Velvet least. It is usually advisable to select the better grades of less expensive weaves rather than the cheaper grades of more expensive weaves. Thus a good-quality Velvet weave is more desirable than a poor Axminster, and similarly, a good Axminster is superior to a poor Wilton. The Tapestry weave has a loop pile; such rugs are generally cheaper than cut-pile rugs.

According to tests made by the Federal Bureau of Standards, density of pile has greater effect on the durability of a rug than any other one factor. Relative density can be determined by counting the number of tufts per square inch on the back of the rug. Rare Orientals may have as many as 500 tufts per square inch; good Wiltons have about 120, and medium Wiltons, about 90; good Axminsters and Velvets, about 80; medium Axminsters and Velvets, about 60. Poor rugs of any weave may have as low as 25.

The term Broadloom is correctly applied to any seamless rug woven 54 inches or wider, regardless of quality or weave.

A pile made of worsted (combed) yarns will wear better

and is more expensive than pile made of woolen (uncombed) yarns. Twisted yarns of 2 or more ply will also give extra wear for the same number of tufts per square inch. Occasionally, rayon pile is used in cheap Oriental reproductions. It gives the rug a sheen but it does not wear well.

A "washed" rug is one in which the luster of old Orientals is simulated by a chemical treatment. If carefully done the "washing" does no harm but, if not, it may injure the colors and in some cases even impair wearing qualities.

Heavy linen and cotton yarns are used for the backing of a rug. Jute and twisted paper are also used, but these are less desirable and are unsatisfactory if there is any danger of their getting wet, when they deteriorate rapidly.

A pad underneath the rug will add considerably to the life of a rug and is relatively inexpensive. Pads increase the durability of rugs with short pile more than those with long pile.

PILLOWS

The most expensive kind of pillow stuffing is eider duck down (the soft undercoating of the adult water fowl). It is very soft, light and resilient. Goose feathers, second in order of desirability, are broad and soft, with curled shafts which give them unusual resilience. Those who prefer the added body which a mixture of goose feathers gives to a down pillow can get a composition of 40% white goose down and 60% white goose feathers. A pillow so stuffed sells for about \$4.

A well-stuffed pillow of all goose feathers, available for about \$2.50, will be both serviceable and reasonably comfortable. Duck feathers are similar to goose, but narrower and less resilient. Chicken and turkey feathers are heavy and flat, and least desirable. A hen-feather pillow sells for around 75¢ to \$1. Be sure to notice if any odor is present. "Slaughterhouse" chicken feathers often have offensive odors, even after they have been washed and steam sterilized.

Since the cheaper stuffings are heavier, lightness may be used as a fair indication of the desirability of a pillow. Insufficient stuffing is indicated if the ends of the pillow droop when the center is supported on the palm of one hand.

The most common adulterant of down is the feather fiber stripped from the shafts of chicken and turkey feathers. This

200 PILLOWS, REFRIGERATORS

should appear as "feather fiber" rather than "feathers" on the label.

Tickings must be tightly woven to prevent feathers or down from working through. They should be unsized and colorfast. Large, coarse feathers require the ACA drill tick.

Ref.: *CU Reports*, May 1938.

ACCEPTABLE

Pillows from **Burton-Dixie Corp.**, Chicago, and **Cold Blast Feather Co.**, Philadelphia.

REFRIGERATORS

MECHANICAL REFRIGERATORS

Tests of 1939 refrigerators are being conducted as the *Buying Guide* goes to press, and ratings will appear in an early issue of the *Reports*.

See *CU Reports*, June 1938, for ratings of 1938 models. Where still available, they may be offered at attractive price reductions as discontinued models.

ICE REFRIGERATORS

In general construction, the best ice refrigerators are now about as good as the mechanical refrigerators. Icers still do not maintain as low interior temperatures. But the best of the newer boxes have the ice compartment across the top and most have special grids through which the ice melts, making possible maintenance of lower temperatures than were possible before.

Insulation should be at least two inches thick. Corkboard and Dry Zero are preferable to most other common insulating materials. Examine the joints of the cabinet for tightness of construction. Hardware should be rugged, and the door catch designed to hold the door tightly shut. A separate door to the ice compartment is desirable. Doors should fit closely, with gaskets at the edges.

The food compartment should have porcelain-enamel finish, at least on the bottom, and the corners should be rounded to facilitate cleaning. Drainpipe and trap should be of material which will resist corrosion.

Secure a written guarantee that your refrigerator will maintain an inside temperature of 45° F. in the part where milk is stored and a 50° F. average for the whole food space in the

hottest Summer weather. Then use a refrigerator thermometer to check performance.

Do not allow ice to get too low, since temperature then rises (the best modern boxes will maintain low temperature until the ice gets down to 25 or 30 pounds).

Except where otherwise noted, the models listed are top icers. List prices are given, but substantial discounts may often be obtained, particularly if an old box is traded in. The measurement in cubic feet gives food-storage capacity; that in pounds, the ice capacity as given by the manufacturer.

See *CU Reports*, July 1937, for a more complete report on the important points in the selection of an ice refrigerator and for ratings on models of 10 different brands. We reprint, for the convenience of members, only listings of the models receiving highest ratings.

ACCEPTABLE

(In estimated order of quality)

Coolerator Model L-9 (Coolerator Co., Duluth, Minn.).

\$89.50. 5.7 cu. ft. 160 lb. 4-in. Dry Zero insulation. Du Lux finish. Bottom interior porcelain. Copper drain. Glass trap.

Coolerator Model L-8. \$79.50. 5.03 cu. ft. 160 lb. Well constructed, but has less insulation than Model L-9, and therefore ice consumption is somewhat higher.

Olympic Model A-2 (Ward Refrigerator & Mfg. Co., Los Angeles). \$110. 6 cu. ft. 125 lb. 4-in. "Firtex" (3-in. in door). Well constructed. Du Lux finish except porcelain bottom interior. Copper drainpipes and traps. Welded seams.

Olympic Models R-10 (5½ cu. ft.) and R-14 (4½ cu. ft.). 125 lb. 3-in. "Firtex"; ice consumption therefore somewhat higher than that of Model A-2 listed above. Well constructed.

Olympic Models R-2 (4½ cu. ft.); R-4 (5½ cu. ft.); and R-7 (6¼ cu. ft.). 75, 100, and 125 lb., respectively. Side icers; otherwise similar to R-10 and R-14.

Icedaire Model C-58 (McKee Refrigerator Co., Cobleskill, N. Y.). About \$80. 5.72 cu. ft. 100-lb. re-icing capacity. 3 in. to 4 in. insulation. Tested by CU in 1938.

Duo-Draft Model B72 (McKee Refrigerator Co.). \$84.50. 6.15 cu. ft. 100 lb. 3½-in. balsam wool.

ICE CHESTS

Many persons may wish to purchase ice chests for small apartments or Summer homes. One of the oldest types of ice boxes, they are also one of the most efficient when walls are

well insulated. The ice should be supported on a grid or block above the floor of the chest. Circulation of air within such boxes is usually poor, and frequent cleaning may be necessary to prevent odors. Look for a box guaranteed by the manufacturer to have at least 2 inches of corkboard insulation and with an interior constructed of heavy galvanized metal.

SEWING MACHINES

Make, model and cabinet style are all factors to be considered in the selection of a sewing machine, but the use to which the machine is to be put should be the main basis for selection. For information on how to choose a machine be sure to read the reference below, where a much fuller discussion is given.

There are two general types of machine, chain-stitch and lock-stitch. The former, although very useful for certain types of sewing, is not satisfactory for home use. Lock-stitch machines are made with three different types of sewing mechanisms: the full rotary bobbin, the oscillating rotary bobbin, and the long shuttle—in order of preference and adaptability to electric drive. The long-shuttle type should not be purchased new with electric drive.

Ratings are based on information obtained in November 1937. Prices unless otherwise indicated were those in effect in NYC at that time.

Ref.: *CU Reports*, November 1937. (Labor notes included.)

LOCK-STITCH

BEST BUYS

Franklin Rotary (White Sewing Machine Co., Cleveland; Sears-Roebuck). Prices given do not include shipping charges. Treadle-operated machine, Cat. No.—9546, \$35.95; electric machine, Cat. No.—9619, \$37.95; desk-model electric, Cat. No.—9606, \$62.95; with de luxe head, Cat. No.—9607, \$69.95; console electric, Cat. No.—9642, \$46.95.

White Rotary. Treadle-operated models with No. 57 head, \$80 up; electric models with No. 47 head, friction-drive motor, \$90 up; models with No. 75 head, built-in motor and reverse-stitching, \$142 up.

Singer Model 15-91 (Singer Sewing Machine Co., NYC). Oscillating electric. \$141.95 with No. 40 cabinet; \$148.75 with No. 47 cabinet.

BEST BUYS—CONT'D

Domestic Rotary (White Sewing Machine Co.; Gimbel's, NYC, and other department stores). Price range is the same as for *White* Rotary and similar models.

Majestic Rotary (White Sewing Machine Co.; Gimbel's, NYC, and other department stores). Prices slightly lower than machines sold under *White* name.

Kenmore DeLuxe Model 83 Rotary Electric (White Sewing Machine Co.; Sears-Roebuck, stores only). \$59.50.

Singer Model 201. Rotary Electric. \$157.25 with No. 40 cabinet; \$168.30 with No. 48 cabinet. Replaces Model 101 (\$161.50 with No. 47 cabinet) which is being discontinued. Model 201 differs from Model 101 mainly in having reversing mechanism.

ALSO ACCEPTABLE

Singer Model 66. Oscillating. Electric: \$114.75 with No. 50 cabinet; \$125.80 with No. 40 cabinet. Treadle-operated: \$88.40.

New Home Full Rotary (New Home Sewing Machine Co., Rockford, Ill.). Prices range from \$76.50 for the treadle machine to \$148.50 for the electric desk-type machine. These machines are sold also with the long-shuttle mechanism at \$10 less in each case.

Improved Eldredge Rotary (National Sewing Machine Co., Belvidere, Ill.). \$59.50.

Singer Model 127. Long shuttle. Treadle-operated. Electric Model 128 "Not Acceptable."

Franklin Long Shuttle (White Sewing Machine Co., Sears-Roebuck Cat. No.—9545). \$29.95 plus shipping charge. Treadle-operated.

Damascus Full Rotary (National Sewing Machine Co.; Montgomery Ward). Prices range from \$33.95 plus shipping charge for electric desk-model, Cat. No.—200. The cheaper long-shuttle models are recommended only when treadle-operated.

Free Westinghouse (Free Sewing Machine Co., Rockford, Ill.). Model LLE head. Long shuttle. Treadle-operated.

Free Westinghouse Full Rotary. Model AAE head.

NOT ACCEPTABLE

Eldredge 2-Spooled Rotary. A good machine, but the large shuttle introduces too many other undesirable features.

Minnesota Model E (White Sewing Machine Co.; Sears-

204 SEWING MACHINES, VACUUM CLEANERS

NOT ACCEPTABLE—CONT'D

- Roebuck). Long shuttle. Treadle-operated or electric. Shuttle arm too long.
- Paveyway; Paveyway Regal** (National Sewing Machine Co.). Long shuttle, top tension. Electric or treadle-operated. General construction poor.
- Brunswick** (National Sewing Machine Co.; Montgomery Ward). Ward's cheapest line. All models considered "Not Acceptable" because of poor general construction.
- New Willard** (White Sewing Machine Co.). Electric or treadle-operated. Length of shuttle arm causes excessive vibration.
- Rockford** (Free Sewing Machine Co.). Electric or treadle-operated. Length of shuttle arm causes excessive vibration.
- National Reverse** (National Sewing Machine Co.). Long-shuttle type, unsatisfactory for electric use.

CHAIN-STITCH

ACCEPTABLE

Chain-stitch machines made by Willcox & Gibbs Sewing Machine Co. (NYC), Singer, National and White are "Acceptable." They may be purchased in both electric and treadle-operated models. This type is more expensive than the lock-stitch type.

VACUUM CLEANERS

Included below are listings of several brands of the *Electrolux* type—which uses a stationary container for motor, fan, and dirt catcher, to which cleaning tools are attached by means of a long, flexible tube.

This type has the advantage of light weight, in that the parts may be carried separately, and of greater convenience in use of accessories for cleaning upholstery, curtains, &c. The conventional type has the advantage of being all one piece, requiring no regular taking apart and putting together; and most models have a revolving brush, which helps pick up surface litter. Many who find accessory tools inconvenient to use with this type use a small hand-operated vacuum cleaner.

Tests reveal no consistent difference in one type of cleaner over the other, either in cleaning ability or in destructiveness to rugs. It is doubtful also that "beater bars," such as those

on the *Hoover* and *Air-Way* cleaners, have any advantage over properly adjusted revolving brushes; but brushes must be set lower as their bristles wear down if they are to continue to be effective.

Before replacing your present cleaner, find out if minor repairs may not make it operate satisfactorily. If the motor is in good condition it may need only replacement of such minor parts as brush, bag and cord.

Good buys can often be obtained in rebuilt cleaners. But buy only from established dealers willing to give a year's written guarantee against defects.

Before buying any cleaner, insist on trying it for yourself at home. You may discover inconveniences overlooked during a demonstration, and you can learn whether the accessories will be regularly useful.

In using a cleaner, empty the bag regularly. Cleaning efficiency is decreased when the bag is full of dirt. Plain bearings should be oiled every few times the cleaner is used. Ball bearings should be repacked with grease every year or two.

Ratings are based on 1936 tests except for *Magic Aire*, *Rexair* and *Progress* which were tested in 1938. Some of these models have been superseded, but may be available in department stores and elsewhere at reduced prices.

Ref.: CU Reports, December 1936 and March 1938.

BEST BUYS

General Electric Models AV1 and AV3 (General Electric Co., Bridgeport, Conn.). \$28.50 and \$21.95, respectively. Both models lack only certain refinements and convenience features of more expensive machines. Model AV3, a small cleaner with no revolving brush, ranked high in cleaning ability; Model AV1, which has a revolving brush, ranked highest of all cleaners tested.

ALSO ACCEPTABLE

(In estimated order of merit)

Premier 37 (Electric Vacuum Cleaner Co., Cleveland). \$39.95. Similar to *General Electric* AV1, but cleaning ability lower. Has minor convenience improvements.

Electrolux Reconditioned Models (Electrolux, Inc., NYC). Tubular type. Where sold for less than \$40 by reliable dealers who will guarantee against defects, they may rank as "Best Buys." The Swedish-made models have a lower cleaning ability than the American-made.

Electrolux. \$78 (advertised installment price, \$84), includ-

ALSO ACCEPTABLE—CONT'D

ing accessory equipment which is particularly convenient to use with tubular-type cleaners like the *Electrolux*. Excellent motor; above average in cleaning ability.

Magic Aire Model 133 (Cleveland Suction Cleaner Co., Cleveland). \$69.50, including accessory equipment. Tubular type. Cleaning ability second highest of all cleaners tested.

Universal Model E 395 (Landers, Frary & Clark, New Britain, Conn.). \$34.95. About average in cleaning ability.

Hamilton Beach Model 8 (Hamilton Beach Co., Racine, Wis.). \$34.75. Cleaning ability average.

Hoover Special Factory Rebuilt Model 700 (Hoover Co., North Canton, Ohio). \$41.75. A well-built machine in excellent condition; ranked high in cleaning ability.

Hoover Model 300. \$49.75. Has headlight, revolving brush with "positive agitation" beaters, convenient bag design. Ranked high in cleaning ability.

Hoover Model 150. \$79.50. A de luxe model, not strictly comparable with other machines tested; excessive price. Ranked high in cleaning ability.

Rexair Series A (Rexair, Inc., Detroit). \$79.50, including accessory equipment. Similar in operation to tubular type, but dirt is collected in pot of water instead of cloth bag. Cleaning ability average. Well constructed. Unsatisfactory as humidifier, noisy, limited output of water vapor.

Progress Model 9 (Progress Vacuum Corp., Cleveland). \$74.95, including accessory equipment. Tubular type. Cleaning ability average.

NOT ACCEPTABLE

Universal Model E95A. \$16.95. Cleaning ability very poor.

Hoover Special Factory Rebuilt Model 105. \$21.45. Cleaning ability very poor.

Air-Way (Air-Way Electric Appliance Corp.). \$80.55 (advertised installment price, \$89.50), including accessory equipment for special cleaning tasks. Cleaning ability low.

WASHING MACHINES

CU is planning new tests of washing machines. Previous ratings given in the *CU Reports*, May 1937, may be of help to those desiring to purchase a machine before our next report on the subject appears (see page 6).

Household Supplies

HOME DRY-CLEANERS AND SPOT REMOVERS

Because of the serious hazard of fire or poisoning involved in the use of all dry-cleaning solvents, none can be approved for home use in bulk (as for dry cleaning a whole garment). There have been almost innumerable cases of severe injury and even death resulting from dry cleaning in the home, where it is usually impossible to take adequate precautions. Even when removing spots or stains from small areas of fabric, one should take great care not to breathe the fumes and not to work near an open flame.

Disregard claims that a cleaner will "remove all stains," that it "leaves no ring," that it is "safe for all fabrics." There is no universal stain remover, and an effective remover for one stain may actually make another more difficult to remove.

Ring formation depends more on the nature of the stain and fabric and the manner in which the cleaner is used than on the composition of the cleaner itself. In general, ring formation is lessened after application of the fluid by rubbing the fabric with a clean cloth until thoroughly dry. Most, if not all, dry-cleaning solvents will cause damage when used on fabrics dyed with non-fast colors.

Stain-removing products are generally simple in composition, and can be bought more cheaply under their common or chemical names than under trade names.

References:

"Stain Removal from Fabrics, Home Methods"; Farmers' Bulletin No. 1474; available from Sup't of Documents, Washington, D. C. 5¢.

CU Reports and Western CU Supplement, January 1939.

ACCEPTABLE

NON-INFLAMMABLE

Consist of carbon tetrachloride, except where noted. This type will not burn or explode, but its vapors are decidedly poisonous—use only out of doors or with unusually good ventilation.

(Cont'd next page)

ACCEPTABLE—CONT'D

Tri-Clene Fabric Cleaner (E. I. du Pont de Nemours & Co., Wilmington, Del.). 9-oz. can, 39¢. Trichloroethylene.

Macy's Cleaning Fluid (R. H. Macy, NYC). 8-oz. can, 33¢.

Griffin Quick Cleaning Fluid (Griffin Mfg. Co., Brooklyn). 3¼-oz. bottle, 19¢. 8-oz. bottle, 40¢. More than 80% carbon tetrachloride.

Carbena Cleaning Fluid (Carbena Products Co., NYC). 1-oz. bottle, 10¢.

Elkay's Klens-All (United Drug, Boston). 4-oz. bottle 25¢.

SEMI-INFLAMMABLE TYPE

Mixtures of naphtha and carbon tetrachloride, except where noted. Will not burn when first opened, but may become inflammable on prolonged exposure to air. Vapors poisonous.

Fullerene¹ (W. P. Fuller, San Francisco). 1-qt. can, 60¢.

Standard Oil Cleaning Fluid¹ (Standard of Calif. stations). 1-pt. can, 37¢.

DeLuxe Cleaning Fluid (Midway Chemical Co., Chicago; 5-&10-cent stores). 4-oz. bottle, 10¢. Leaves odor in fabric; otherwise good buy at price.

Fireproof Energine (Cummer Products Co., Bedford, Ohio). 2½-oz. can, 10¢. 8-oz. can, 29¢.

Ex-tane Spot Remover (Stanco, Inc., Bayway, N. J.). 8-oz. can, 35¢.

Nacto Fabric Cleaner (Nacto Cleaner Corp., NYC). 8-oz. can, 37¢. Apparently consists of carbon tetrachloride mixed with one or more other solvents.

Flash Fabrikleen (Flash Laboratories, Chicago). 8-oz. can, 39¢.

Stop Spot (Union Oil Co. of Calif., Los Angeles). 5-oz. bottle, 47¢.

Shell-Kleanzit (Shell gasoline stations). ½-gal. can, 74¢. Estimated to contain 60% naphtha; may become inflammable on exposure to air.

INFLAMMABLE

Will burn, but vapors are not explosive at temperatures below 100° F.

Rio Grande Solvent¹ (Rio Grande gasoline stations). Sold in bulk, 7¢ a qt.

Signal Stoddard Cleaner¹ (Signal gasoline stations). ½ gal., 13¢. Meets specifications for Stoddard solvent.

¹ Available in the West only.

NOT ACCEPTABLE

INFLAMMABLE

Gasoline.

Denatured Ether.

Mufti (Mufti Co.). 6-oz. can, 30¢.

Justrite Cleaning Fluid (Walgreen). 10-oz. can, 25¢.

Inflammable Energine (Cummer Products). 8-oz. can, 21¢.

*Premier*¹ (Sontag drugstores). 1-pt. can, 19¢.

HOUSEHOLD CLEANING SUPPLIES

A multitude of products are advertised for all sorts of cleaning and polishing tasks. Many consist of materials which can be purchased much more cheaply under their own names than under trade names. Very often trade-marked products are recommended for uses for which they are not suited or in which they may actually be injurious. This obtains also for trade-marked articles which may be satisfactory for *one* type of use, but which are recommended for additional ones for which they are useless or injurious.

The following few standard supplies will suffice for most house-cleaning tasks in which ordinary soaps and washing powders are inadequate.

Trisodium Phosphate—TSP (chemical supply stores; also from Cooperative Distributors, NYC, 2½-lb. package, 25¢ plus postage). The following proprietary products consisted mainly of TSP: *Oakite*; *Eazo*; *Brüto*.

Washing Soda (sodium carbonate) is somewhat less effective but more readily available than TSP. Inexpensive "soap powders" (washing powders), sold under various brand names, are largely washing soda with but little soap present, and are a convenient substitute.

For washing dishes and silverware and cleaning greasy surfaces, use two teaspoonfuls of TSP, or about double that amount of washing soda to a gallon of water. Either acts as a water softener, but TSP is better for this purpose in the presence of soap. Either may irritate the skin. *Do not use* on silks, woolens, colored fabrics, or aluminum.

Household Ammonia. For washing windows, cleaning copper and brass, and similar purposes. The clear type, when available, is preferable to the cloudy and to the so-called

¹ Available in the West only.

210 CLEANING SUPPLIES, METAL CLEANERS

powdered ammonia, since it evaporates completely, leaving no residue.

Kerosene. For cutting grease. Inflammable. Do not under any conditions use gasoline as a substitute.

Steel Wool. Grade 0 (fine) or Grade 00 (very fine). For rough scouring. Much cheaper in quantity than in small packages. The bulk steel wool, in rolls, rusts quickly and splinters easily; use rubber or leather gloves to avoid splinters. The more expensive prepared pads, in packages, do not rust or splinter so readily.

Copper Tinsel Balls. More expensive than steel wool but generally preferable because they do not splinter or rust. They do not remove hard deposits as readily as steel wool.

Whiting (ground chalk). A mild abrasive or scouring powder, safe for use on porcelain and porcelain enamel, enamelware, plated ware, silverware, &c. Use alone or mixed with TSP, moistened with water, soap and water, ammonia, or kerosene, depending on the task to be done. Preferable to such branded powders as *Babbitt's*, *Old Dutch Cleanser*, *Bab-O*, *Kirkman's*, *Vit*, *Pal-lo*, or *Bon Ami*, which are too harshly abrasive for most of the uses mentioned above.

Jeweler's Rouge—Venetian Red (jeweler's supply stores). A mild abrasive, but expensive. Effective for polishing silver or gold.

Ref.: "Housecleaning Made Easier"; Farmers' Bulletin No. 1180; available from Sup't of Documents, Washington, D. C. 5¢.

AUTO POLISHES

Ref.: Supplement to "Millions on Wheels," by D. H. Palmer and L. E. Crooka.

METAL CLEANERS AND POLISHES

Warm vinegar or buttermilk may be used to remove tarnish from copper, brass or bronze. Wash thoroughly with water, dry and polish with dry whiting. Ammonia, or whiting and ammonia, is also effective. Scouring powders, while effective, are apt to scratch excessively.

Avoid chemicals and coarse abrasives on nickel. Whiting with ammonia or with water may be used.

ACCEPTABLE

For solid metals but not plated:

Rub-Less (Feiner Chemical Mfg. Co., Springfield, Mass.). 3-oz. can, 10¢.

ACCEPTABLE—CONT'D

Silco (Tamms Silica Co., Chicago). 4-oz. envelope, 10¢.

Alumin-Nu (Vaporine Co., Chicago).

NOT ACCEPTABLE

Comet Rust Remover (J. W. Crane Co.). Contained hydrofluoric acid, a dangerous poison.

Cyrex (Cyrex Mfg. Co.). Contained oxalic acid, a poison.

Edwards Rust Remover (Edwards Products Corp.). Contained oxalic acid, a poison.

Krome Plate (Frank Jones Chemical Works). Contained cyanide, a deadly poison.

Lee's Lightning Rust Remover (Lee Polish Mfg. Co.). Contained oxalic acid.

Simoniz EZ-2 Chrome Cleaner (Simoniz Co.). Not safe for use on nickel as claimed.

Star Dust Metal Conditioner & Polish (Cleveland Container Co.). Contained oxalic acid.

Waltis Rust Remover (American Soap Powder Works). Contained oxalic acid.

SILVER POLISHES

The tarnishing of silver is caused by its reaction with sulfur compounds in the air to form a coating of black silver sulfide. Hence, silver articles not in use can be protected by wrapping them tightly in paper or cloth, or by placing them in a container which closes tightly.

Avoid harsh abrasives, especially on plated silver.

A paste made of moistened fine whiting, or whiting and ammonia, is a safe polish for silverware. Also, a jeweler's rouge cloth is safe for silver and gold. It may be made by sprinkling a little jeweler's rouge on the fleeced side of a cotton flannel cloth.

BEST BUYS

Johnson's Shi-nup (S. C. Johnson & Son, Racine, Wis.). 8-oz. jar, 25¢.

Gorham Cream (Gorham, Providence, R. I.). 8-oz. jar, 25¢.

ALSO ACCEPTABLE

Magic Polish (Magic Polish Co., NYC). 1/2-pt. can, 25¢.

Brito. Consisted of TSP at a marked-up price.

Tarnish-Resist (John L. Snowber, NYC). 4-oz. bottle, 50¢.

Price is excessive, and claims objectionable.

(Cont'd next page)

212 SILVER POLISHES, WINDOW CLEANERS

ALSO ACCEPTABLE—CONT'D

The Glad Rag (Glad Rag Products Corp., NYC). Effectiveness decreases rapidly with use. Good for slightly tarnished flat silver. Ineffective on badly tarnished and engraved silver.

NOT ACCEPTABLE

Avoid any silver polish whose label states that it contains cyanide or other poisonous ingredients.

Brillo Utensil Soap (Brillo Mfg. Co.). Contained pumice, which is much too harsh for silverware.

Silver-ene (Lane Laboratories). Contained cyanide.

TARNISH PREVENTIVES

Special tarnish preventives are composed of chemicals which are supposed to absorb the sulfur compounds from the air, but they are effective only in a confined space. Do not use any silver-tarnish preventive of unknown composition, as many contain lead acetate or other poisonous substances.

No silver polish has effective tarnish-preventing properties.

ACCEPTABLE

Silver Sentry (Columbia Refining Co., Long Island City, N. Y.).

NOT ACCEPTABLE

Silverbrite Pad. Contained lead acetate.

WINDOW CLEANERS

The cloth used in the drying and polishing is more important than any special materials. Wash the window thoroughly with plain water (a little clear ammonia added may help in some cases). Dry and rub with clean lintless cloth.

None of the commercial glass cleaners and polishes listed below offers any advantages over the method indicated above.

Mirax (Mirax Chemical Products Corp.). Water 77%, denatured alcohol 23%, dye and perfume.

Mobo Windshield and Window Cleaner (J. T. Stanley). Water 64%, denatured alcohol 35%, ethylene glycol 1%.

Permatex Windshield Cleaner. Water 79%, alcohol 20%, ammonia 0.3%.

Shur Klens Creme (Shurberg Chem. Co.). Water 87%, soap 12%, very small amounts of TSP and soda ash.

Western Wonder Glass Cleaner (Western Auto Stores). Water 30%, denatured alcohol 70%, and dye.

Windex (Drackett Chemical Co.). Water 97%, ethylene glycol 3%, and dye.

Wipe Kleen (Wipe-On Corp.). Water 61%, kerosene 15%, waxes 6%, soap 2%, abrasive 16%.

ZX Glass Cleaner (ZX Products). Water with a trace of amyl acetate and dye.

DRAIN CLEANERS

Clogged drains can often be opened by use of a "plumber's friend" (rubber suction cup on the end of a wooden handle). Deposits of grease and other solids are often inaccessible. They can usually be dissolved or loosened by solid caustic soda or lye (sodium hydroxide, a *corrosive poison*), available from grocery or hardware stores.

Some proprietary drain cleaners consist simply of lye with a little coloring matter. Other brands, claimed to be self-stirring, contain aluminum chips which react with the caustic soda. They usually liberate an objectionable odor, and frequently throw off an undesirable fine spray of the solution. They are, therefore, "Not Acceptable."

NOT ACCEPTABLE

Drano (Drackett Co.). Contained aluminum and lye.

Desolvo. Contained aluminum and lye.

Skasol (Allied Engineering Products Co.). Dilute hydrochloric acid, likely to injure plumbing.

TOILET-BOWL CLEANERS

Use washing powder or TSP applied with a long-handled brush. Sodium acid sulfate (sold by chemical supply houses) may be more effective, and will also remove stains which are not removable by washing powder or TSP.

ACCEPTABLE

Sani-Flush (Hygienic Products Co., Canton, Ohio). Consists largely of sodium acid sulfate.

PAINT REMOVERS

A strong solution of TSP—one pound to a gallon of hot water—will soften paint so that it can be scraped off. Complete removal may require the use of an abrasive such as sandpaper or steel wool. Avoid inhaling the dust from sanding—especially with lead paints—preferably by using waterproof sandpaper and sanding the surface while wet. Many commer-

214 BRUSH CLEANERS, DEODORANTS

cial paint removers consist of mixtures of wood alcohol, acetone, and benzol (*poison*), with sometimes a small amount of paraffin.

PAINT-BRUSH CLEANERS

Proprietary paint removers and paint-brush cleaners often contain alkaline chemicals such as TSP which are likely to damage the bristles. Brushes in frequent use may be kept immersed in kerosene or turpentine; do not keep them in water. Brushes on which the paint has hardened may be cleaned by long soaking in kerosene, followed by soaking in a mixture of three parts benzol (*vapors poisonous to inhale*) and two parts acetone and thorough brushing out on a rough board.

NOT ACCEPTABLE

Savabrush (Schalk Chemical Co.). Consisted of TSP.

DEODORANTS AND DISINFECTANTS

Cleanliness, sunshine and fresh air are the best deodorants and are sufficient disinfectants in many cases. Immersion in boiling water or heating at the temperature of boiling water or above is the most reliable method of disinfecting articles which can be treated in this way. Fumigation of rooms to disinfect them after illness is usually unnecessary—and not very effective anyway.

Many so-called deodorants merely cover up one odor with another which is less objectionable.

Ref.: "Some Common Disinfectants"; Farmers' Bulletin No. 926; available from Sup't of Documents, Washington, D. C. 5¢.

ACCEPTABLE

40% Formaldehyde Solution — Formalin (drugstores).

About 50¢ a lb. Dilute 1 part of the solution with 9 parts of water.

Compound Solution of Cresol USP (drugstores). About 60¢ a pt. 4 oz. in 1 gal. of water (does not mix well with hard water). *Poisonous*.

Chlorinated Lime—bleaching powder, chloride of lime (drugstores). About 12¢ a lb. 6 oz. in 1 gal. of water. Keep in tightly sealed containers. Good disinfectant and deodorant but harmful to fabrics and metal. Not effective against tuberculosis germs.

Sodium Hypochlorite Solutions (5%). The familiar bleaching solutions sold in grocery stores under such names as

ACCEPTABLE—CONT'D

Clorox, Sani-Clor, Hi-Lex, &c., are of this type. Many of them have been proceeded against by the Federal Trade Commission for making false claims. They are general disinfectants and deodorants, but are harmful to fabrics and metal. Not effective against tuberculosis germs, nor for treating ivy poisoning, insect bites, and many other things which have been claimed for them.

NOT ACCEPTABLE

- Pine-Oil Disinfectants.** Ineffective against many bacteria.
- Bichloride of Mercury** (corrosive sublimate, mercuric chloride). A dangerous poison and less effective than other, safer disinfectants.
- Carbolic Acid** (phenol). Poisonous, expensive, odor objectionable; and less effective than generally believed.
- Lysol** (Lehn & Fink Products Corp.). Similar to Compound Solution of Cresol USP, but more expensive. (79¢ a pt.). Unsuitable or dangerous for many of its recommended uses.
- Zonite** (Zonite Products Corp.). 69¢ for 14 oz. Essentially the same as a dilute solution of *Clorox*.
- Sanovan Deodorant.** Price excessive (8-oz. can, 80¢). Irritating if used on skin as suggested.

 MISCELLANEOUS CLEANERS

NOT ACCEPTABLE

- Ammo** (American Ammone Co.). Essentially washing soda; ammonia content too low to be effective.
- Bar Keeper's Friend** (Walter W. Miller Co.). Contained oxalic acid.
- Dic-A-Doo Paint Cleaner** (Patent Cereals Co.). Likely to damage painted surfaces.
- Johnson's Cleaner** (Johnson Products Co.). Water 98.5%, TSP 1.5%.
- Kotofom** (Kotofom Corp. of America). A solution of soap with 1% ether. Water 85%. Cannot remove ink as claimed.
- Pretone** (Pretone Co.). A solution of TSP and soap with a trace of pine oil; expensive. 97% water.
- Prim** (Prim Co.). 95% water with 0.5% soap and small amounts of other materials. Will not dry without trace of film or without streaking as claimed.
- Savogran Heavy Duty Cleaner** (Savogran Co.). Not harmless to hands or paint brushes as claimed.

HOUSEHOLD FUELS

HOUSE HEATING

Coal. The efficiency of a coal-fired furnace or boiler can be greatly improved and its cost of operation reduced by thorough cleaning and repairing of any leaks in the smoke pipe or chimney. With anthracite coal, a saving can usually be made by using buckwheat size, even though this requires installation of special grates or blowers. Pea coal or a mixture of pea with one of the larger sizes can usually be burned with ordinary grates and is cheaper than egg, stove or nut. With soft coal, stokers and special boilers are especially desirable for economical heating.

Coke. In some cities, coke may be available at prices lower than those for the corresponding sizes of coal. Its chief drawbacks are: (1) since it is lighter than coal, it fills up much more space both in storage and in the furnace; (2) in a firebox of average size it is impossible to maintain a coke fire for a full day in cold weather without stoking frequently.

Since coke responds quickly to draft, it may be difficult to check a coke fire if the ashpit door and draft openings do not close tightly. This difficulty may be overcome somewhat by using smaller-sized coke or a mixture including some coke of small size.

Two important characteristics of petroleum coke make it unacceptable for home heating plants: (1) it tends to form a scale on the heating surfaces which reduces the efficiency of the boiler or furnace; (2) it burns at a very high heat and since it has no ash, the fire is in direct contact with the grates causing them to warp or crack.

Oil. Economies can sometimes be made in buying furnace oil from independent dealers who sell at prices below those of the large oil companies for the same oil. Make sure, however, that the oil offered is suitable for your burner. Ask the dealer for proof that the oil comes from a reliable major company and is identical with that sold by the major company at a higher price. If he has a service department, permit him to deliver a load on condition that he will guarantee to take care of any burner troubles occurring while the oil is being used. If your oil-burner dealer or serviceman does not sell fuel oil himself, ask him about the oil in question. The "Best Buy" in oil is the heaviest or thickest oil that the burner will atomize properly.

Ref.: *CU Reports*, October 1936; October 1937.

GAS-RANGE APPLIANCES

Various devices are sold for use on kitchen gas ranges with claims that they will cut down the monthly gas bill or cause the range to operate more satisfactorily.

The U. S. Bureau of Standards has tested a number of these devices. It has found that none of them accomplish what is claimed for them, that they actually interfere with the proper operation of the range, and that they are likely to cause production of dangerous amounts of carbon monoxide.

References:

"Cautions Regarding Gas-Appliance Attachments"; Bureau of Standards Circular 404; available from Sup't of Documents, Washington, D. C. 5¢.

"What Are the Facts About Gas Savers?" Information Service No. 115, American Gas Ass'n, NYC.

The relative prices of fuel vary from one locality to another. In using the following tables, therefore, it may be necessary for the consumer to work out revised cost figures based on the price at which each fuel is available to him. Remember that the figures below are based on *estimated* efficiencies, and that your own equipment may vary in its efficiency. Costs are, therefore, approximate.

COMPARATIVE COOKING FUEL COSTS FOR AN AVERAGE FAMILY

FUEL AND APPROX. EFFICIENCY	FUEL PRICE	HEATING VALUE IN BTU	MONTHLY Cost ¹ \$
COAL			
Pea Anthracite. 10%.....	\$9.50 per ton	12,500 per lb.	1.14
Nut Anthracite. In AGA range, 25% ²	\$13 per ton	13,000 per lb.	.60

¹ Based on 300,000 Btu of utilized heat per month.

² At present the only range that will give this performance is the AGA Range (American Gas Accumulator Co., NYC.). This range will run 24 hours on about 10 lb. of coal. First cost very high—\$325.

(Cont'd next page)

218 FUEL COSTS

FUEL AND APPROX. EFFICIENCY	FUEL PRICE	HEATING VALUE IN BTU	MONTHLY Cost ¹ \$
GAS			
Natural. 40%	60¢ per 1,000 cu. ft.	1,100 per cu. ft.	.41
Manufactured. 40%	\$1.10 per 1,000 cu. ft.	540 per cu. ft.	1.52
Propane (bottled). 45%..	10¢ per lb.	21,600 per lb.	3.08
KEROSENE 30%....	10¢ per gal.	135,000 per gal.	.74
ELECTRICITY 75%.	3¢ per kwh	3,415 per kwh	3.51

¹ Based on 300,000 Btu of utilized heat per month.

COMPARATIVE ANNUAL FUEL COSTS FOR HEATING A 6-ROOM HOUSE

FUEL, APPLIANCE AND APPROX. EFFICIENCY	FUEL PRICE	HEATING VALUE IN BTU	ANNUAL Cost \$
COAL			
	PER TON	PER LB.	
Bituminous (room heater). 60%.	\$6	13,000	44
Bituminous (central heating). 45%	\$6	13,000	59
Anthracite			
Pea (heater). 60%.....	\$9.50	12,500	73
Rice (central with stoker). 60%	\$6.25	12,000	50
Buckwheat (central with blower). 55%	\$7	12,500	59
Pea (central, hand-fired). 50%.	\$9.50	12,500	88
Stove (central, hand-fired). 50%	\$13	13,000	115
Semi-bituminous (central). 50%.	\$8	13,000	71
Coke (central). 50%.....	\$11	12,000	106

FUEL, APPLIANCE AND APPROX. EFFICIENCY	FUEL PRICE	HEATING VALUE IN BTU	ANNUAL COST \$
OIL			
	PER GAL.	PER GAL.	
Fuel oil #3. 60%.....	6¢	141,000	82
Fuel oil #2. 60%.....	6.5¢	138,500	90
Fuel oil #1. 60%.....	8¢	136,000	113
GAS			
	PER 1,000 CU. FT.	PER CU. FT.	
Natural (heater—unvented). ^a 90%.....	40¢	1,100	46
Natural (heater—vented). 65%..	40¢	1,100	64
Natural (central). 75%.....	40¢	1,100	56
Manufactured (heater—unvented). ^a 90%	65¢	540	154
Manufactured (heater—vented). 65%	65¢	540	213
Manufactured (central). 75%....	65¢	540	184
ELECTRICITY			
	PER KWH	PER KWH	
Electricity (heater). 100%.....	2¢	3,415	675

^a Unvented room heaters are inadvisable because they may give off poisonous carbon monoxide.

INSECT AND RODENT CONTROL

Brief suggestions are given here for the control of various pests, using, chiefly, supplies which can be most cheaply obtained under their own names at drug, hardware, and seed stores.

Proprietary insecticides are usually overpriced and many of them are either dangerous to use or ineffective under ordinary conditions of use.

Fumigation with hydrogen cyanide gas ("cyanide gas" or "hydrocyanic acid gas") is an effective means of exterminating insects; *but this gas is so dangerous to humans that it should be used only by a competent professional exterminator.*

Fully satisfactory control of insects and other pests requires some study of their habits. Following the instructions in the references given at the end of the following listings will often make the purchase of commercial insecticides unnecessary.

(Cont'd next page)

ANTS

Sodium fluoride (*poison*), available at drugstores. Dust in places frequented by ants. Be careful not to inhale the dust.

Shallow dishes of tartar emetic syrup—1 oz. of tartar emetic (*poison*) dissolved in 1 pint of thick sugar syrup—may be placed where ants will find it.

BEDBUGS

Kerosene (but remember fire hazard) should be forcibly injected with a syringe into all cracks in furniture and walls.

BEEES, WASPS, HORNETS

The sting of these insects should be treated by removing the stinger, if present, and then giving the same care as for mosquito bites (see below). Pain or swelling may be lessened by applications of ice-cold wet compresses.

CHIGGERS

Chiggers are red larvæ barely visible to the naked eye, found on low vegetation during the Summer months. On the body they cause a very severe itching, and the affected areas may become congested and bloody and may require 10 to 14 days to heal. To remove, apply kerosene or benzine to the bites for short periods (caution: avoid leaded gasoline). Follow their removal with a half-hour soap and water bath, then apply rubbing alcohol, followed by boric acid ointment. If the itching is very severe, 1% of phenol and 0.2% of menthol may be incorporated in the ointment. A complete change of clothing should follow.

The mites may be destroyed on vegetation by spraying with sulfur.

COCKROACHES

Sodium fluoride (*poison*) may be carefully dusted into corners, cracks, &c. Dusting with borax or pyrethrum powder (the latter can be bought at seed stores or from insecticide companies) is safer, but less effective. Dusting with flowers of sulfur repels roaches.

Carbon disulfide is inflammable and therefore dangerous.

FLIES

Flypaper intelligently placed about the house is recommended. A mixture of 3 teaspoons of 40% formaldehyde (formalin) solution (*poison*) in a pint of water and a little

brown sugar may be placed with pieces of bread in saucers where flies will be attracted to it. Keep mixture out of reach of children and household pets.

Pyrethrum-kerosene sprays such as *Flit* or *Fly-Tox* are effective only if they come into actual contact with the flies. A pyrethrum-kerosene spray can be made at home for about 60¢ to 75¢ a gal. Add 1 lb. of pyrethrum powder (purchase from fresh stock of seed or insecticide companies, not from drugstores) to a gallon of white kerosene. Stir occasionally for several hours, allow the mixture to settle overnight, and pour off the clear liquid. Keep in tightly stoppered containers.

MOSQUITOES

A pyrethrum-kerosene spray may be used (see above for method of making). This (or a good commercial pyrethrum insecticide) will also give some protection against the large variety of crawling and winged creatures which infest the open country in Summer. Openings in living quarters should be protected with fine mesh wire screens or cloth netting.

Oil of citronella is an effective temporary repellent. Place a few drops of the following solution, which your druggist can make up, on a cloth hung over the head of the bed: Oil of citronella, 1 oz.; spirits of camphor, 1 oz.; oil of cedar, $\frac{1}{2}$ oz.

Scratching mosquito bites invites infection. Treatment with dilute ammonia water or a paste of sodium bicarbonate may relieve the itching somewhat. Follow this with a soothing application such as zinc oxide and lime water lotion or calamine lotion.

MOTHS

The following materials, if used in the amount of at least 1 lb. for each 100 cu. ft. and distributed thoroughly among the articles to be protected in a *tightly sealed* chest or closet, will kill moth larvæ.

Naphthalene flakes or balls (moth balls).

Paradichlorobenzene.

Gum camphor (expensive).

Spray solutions such as *Flit* or *Fly-Tox* are effective only if articles are dipped in them or are so powerfully sprayed as to bring the liquid into actual contact with all moth larvæ and eggs. "Moth cakes" and preparations for use in metal or glass devices which hang in the closet are ineffective as ordinarily used. Moth preparations containing arsenic are dangerous and should not be used.

(Cont'd next page)

222 PEST CONTROL, INSECTICIDES

The following preparation, used mainly for commercial application, is effective and may be obtainable for home use in some localities:

Konate (American Cyanamid and Chemical Corp., NYC).

RATS AND MICE

Traps are preferable to poisons for killing rats and mice, since poisoned animals may die and decompose in the walls and foundations of the house. Red squill is an effective poison (oven-dried is preferable to sun-dried); for method of use see reference below. Do not use preparations containing thallium or strychnine, or living viruses, all of which may be extremely dangerous to humans or domestic animals.

ACCEPTABLE

K-R-O (K-R-O Co., Springfield, Ohio). Oven-dried red squill.

WOODTICKS

Woodticks may transmit Rocky Mountain Spotted Fever or Tularemia, and occasionally a type of paralysis, especially in children.

If a tick becomes attached (usually it will be found on the head or the back of the neck) remove it immediately, preferably with a forceps and, if possible, without force, to avoid leaving the irritating mandibles in the skin. A drop of benzine or turpentine applied to the insect will often cause it to drop off. Disinfect the bite and surrounding tissue with a round toothpick dipped in iodine, drilling it into the wound slightly.

COMMERCIAL INSECTICIDES

NOT ACCEPTABLE

A list of brands follows against which action has been taken by the Food & Drug Administration for adulteration, misbranding or false claims, or against which other unfavorable reports have been received.

MISCELLANEOUS PREPARATIONS

All-Nu Roach and Ant Killer (All-Nu Products Co.). Adulterated and misbranded.

Antsis (Bonide Chemical Co.). Contained thallium sulfate.

Bugine Roach Powder (Royal Mfg. Co.). Misbranded.

German Roach and Waterbug Powder (German Chemical Co.). Misbranded.

NOT ACCEPTABLE—CONT'D

Key Brand Ant Killer (Interstate Chemical Mfg. Co.).

Contained sodium arsenite.

Monogram Insect Powder (Royal Mfg. Co.). Misbranded.

Scientific Fly Spray (All-Nu Prod.). Ineffective, poisonous.

Bug Dust (Henry Field Seed Co.). False advertising claims.

FLEA PREPARATIONS

Fleadex (Walter B. Stevens & Son). Misbranded.

Justrite (Justrite Co.). Misbranded.

Spratt's Flea Soap (Spratt's Patent). Misbranded.

Spratt's Flea and Insect Powder. Misbranded.

MOTH PREPARATIONS

Ineffective when used as directed: Banol, Exo-Nox, Expello, Germ-ax, Ideal Moth Block, Larvex, Mothex, Mothola, Moth-Pruf Cabinets, Moth Tabs, Moth Wool, No-Moth, Odora Moth Cake and Motholator, Patterson's Cedarex Tubes, Tanglefoot Difusor Method, Termox.

References (see page 7 for directions on ordering):

General: "Common Insects of the Household"; Extension Bulletin No. 202, N. Y. State College of Agriculture, Ithaca, N. Y. Free.

Ants: Farmers' Bulletins No. 740 and No. 1101, Sup't of Documents, Washington, D. C. 5¢ each.

Bedbugs: Farmers' Bulletin No. 754. 5¢. "Fleas, Bedbugs and Human Lice"; Extension Bulletin No. 144, Michigan State College, East Lansing, Mich. Free.

Carpet Beetles: "Buffalo Moths"; Farmers' Bulletin No. 1346. 5¢.

Centipedes: Farmers' Bulletin No. 627. 5¢.

Cockroaches: Farmers' Bulletin No. 658. 5¢.

Flies: Farmers' Bulletin No. 1408. 5¢. "Fly Traps and Their Operation"; Farmers' Bulletin No. 734. 5¢.

Fleas: Extension Bulletin No. 144, Michigan State College. Free. Farmers' Bulletin No. 897. 5¢.

Lice: Extension Bulletin No. 144, Michigan State College. Free.

Mosquitoes: "Remedies and Preventives"; Farmers' Bulletin No. 1570. 5¢. "The Yellow Fever Mosquito"; Farmers' Bulletin No. 1354. 5¢. "Malaria Mosquitoes"; Farmers' Bulletin No. 450. 5¢.

Moths: "Clothes Moths"; Farmers' Bulletin No. 1353. 5¢. "Moths in Upholstered Furniture"; Farmers' Bulletin No. 1655. 10¢.

(Cont'd next page)

224 INSECTICIDES, OILS, PAINTS

Rats and Mice: Farmers' Bulletin No. 1533. 5¢.

Silverfish: Farmers' Bulletin No. 1665. 5¢.

Termites: "White Ants"; Farmers' Bulletin No. 1472. 5¢.

LAUNDRY SOAP AND WASHING POWDERS

New tests are planned on laundry soaps (flake and bar) and washing ("soap") powders. Results of these will appear in *CU Reports*. (For results of previous tests, see *CU Reports*, August 1936 or the 1938 *Buying Guide*).

OILS FOR HOUSEHOLD USE

Where household oil is used in quantity, money can be saved by mixing the oil at home as described below.

Ref.: *CU Reports*, October 1937.

Price in brackets is cost per fluid ounce.

BEST BUYS

Mixture of one part (by volume) of kerosene with four parts SAE 10 (100% paraffin base) motor oil (see page 164).

[Approx. 0.6¢.]

Singer in qt. can (*Singer Sewing Machine stores*). 40¢ a qt. can [1.3¢].

Visco (*Visco Chemical Products Co., Cincinnati*). 10¢ a can [2.5¢].

Ever-Ready (*Ever-Ready Co., NYC*). 10¢ a can [2.5¢].

Nye's (*Wm. F. Nye, New Bedford, Mass.*). 10¢ a bottle [2.5¢].

ALSO ACCEPTABLE

Singer in 3-oz. can. 20¢ a can [6.7¢].

NOT ACCEPTABLE

Sears' Cross Country General Purpose (*Sears-Roebuck*).

Too great change of viscosity with temperature.

3-In-One (*A. S. Boyle Co.*). Too great change of viscosity with temperature. Too acid for safety.

HOUSE PAINTS

It does not pay to stint on the quality of paint; the cost of painting is usually more for labor than for material. Reliable, long-lived paint jobs give greatest economy.

Even the best of paints will fail to give satisfactory service if carelessly applied on improperly prepared or unsuitable surfaces. Remember that after the first repainting the coating is composed of the new paint plus what remains of the old; the two must be compatible if the new paint is to give its normal service.

On a repainting job it is safest to use the kind of paint previously used, unless the original paint is first removed completely.

PURE WHITE LEAD PAINTS

For those who wish the best quality at the lowest net cost, who may wait more than four to five years between paint jobs, and who wish to minimize the necessity of removing old paint before repainting, pure white lead paint ("lead and oil") remains the wisest choice. White lead paint is almost always sold in the form of paste, in white only, to be thinned for application and tinted, when colors are desired, by the user. If less than 1½ gallons is needed, however, this paint is rather inconvenient.

Pure white lead paste paint is well standardized, and the various brands on the market are usually about the same in both composition and price. Do not confuse pure white lead paste paint with other white paste paints that contain a mixture of pigments and are sometimes mistakenly or deceitfully called "lead and oil." So many mixed-pigment paste paints are of inferior quality that it is safer to buy a good prepared paint when a mixed-pigment formula is desired.

BEST BUYS

Anaconda White Lead (Anaconda Lead Products Co., East Chicago, Ind.).

Dutch Boy White Lead (National Lead Co., NYC).

Carter White Lead (National Lead Co.).

Eagle White Lead (Eagle-Picher Lead Co., Cincinnati).

Euston White Lead (Euston Lead Co., Scranton, Pa.).

Sherwin-Williams O. D. P. (Sherwin-Williams Co., Cleveland).

Pioneer White Lead (W. P. Fuller Co., San Francisco).

READY-MIXED PAINTS

Prepared paints, also called ready-mixed paints, are most convenient when only a small amount is needed, or when the user does not wish to take the trouble of adding tinting colors

to white paint. Some of the better ones make coatings of cleaner and brighter appearance during much of their useful life than does pure white lead paint. But they do not stand periods of neglect between paintings, and they should be properly repainted with paint of similar composition before the coating begins to break up badly. As a rule no more than four to five years should elapse between paint jobs on a given surface.

Practically always, prepared paints contain a mixture of white pigments, such as white lead and zinc oxide, or a mixture of white lead, zinc oxide and titanium pigment. There are no standards for their manufacture and the ingredients and their proportions in the paints vary widely, not only between different brands but often between the white and the colored paints of the same brand.

Reliable brands bear a label statement of the formula or a list of the ingredients and their proportions in the paint. Make a permanent record of this formula, so that paint of similar composition can be purchased again if the original is satisfactory.

Paints put up in very small amounts, including the 5- & 10-cent-store paints, are almost invariably of very inferior quality; the can itself is often the major item of manufacturer's expense. If such paints are used at all, they should be used only on articles of temporary service that will not require repainting.

The brand listings given below refer to both the white and tinted paints of the brands named unless otherwise indicated; but the white and tinted paints of a given brand are not necessarily of similar composition. The listings assume that the paint is to be used on previously unpainted woodwork or over old paint of similar composition and in proper condition for repainting. It is not possible to make general recommendations for paint to be applied over old coatings made up of different kinds of paint.

References:

"Painting on the Farm"; Farmers' Bulletin 1452, U. S. Dep't of Agriculture; available from Sup't of Documents, Washington, D. C. 5¢.

"Paints for the Farm"; catalog of Eastern States Farmers Exchange, Box 1482, Springfield, Mass.

"Wood Handbook," pp. 227-47; U. S. Dep't of Agriculture; available from Sup't of Documents, Washington, D. C. 25¢.

BEST BUYS

- Best Quality** (Marshall-Wells Co., Duluth).
B P S (Patterson-Sargent Co., Cleveland).
Chief (Chicago Paint Works, Chicago).
Armstrong (Armstrong Paint & Varnish Co., Chicago). Same as *Chief* and made at the same address.
Commander (Pratt & Lambert, Buffalo).
Devoe Two-Coat System (Devoe & Reynolds Co., NYC).
Du Pont Prepared (E. I. duPont de Nemours & Co., Wilmington, Del.).
Fullerton (Indiana Indestructible Paint Co., Chicago).
Vilas Bros. Strictly Pure (Vilas Bros., Chicago). Same as *Fullerton* and made at the same address.
Gamble's Super House Paint (Gamble Stores, Minneapolis).
High Standard (Lowe Bros., Dayton, Ohio).
Jewel Mixed (Jewel Paint & Varnish Co., Chicago).
Quality (Minnesota Linseed Oil Paint Co., Minneapolis).
Sears' Seroco Master Mixed (Sears-Roebuck).
Sun Proof (Pittsburgh Plate Glass Co., Milwaukee).
Ward's Super House Paint (Montgomery Ward).
S W P (Sherwin-Williams Co., Cleveland).

ALSO ACCEPTABLE

- Carmote** (Carpenter-Morton Co., Boston).
Chi-Namel (Chi-Namel Co., Chicago).
Dutch Brand (Perry & Derrick Co., Dayton, Ky.).
Gold Label (Sargent-Gerke Co., Indianapolis).
Kyanize (Boston Varnish Co., Boston).
Master Craft (Badger Paint & Varnish Co., Chicago).
Monarch (Martin-Senour Co., Chicago).

NOT ACCEPTABLE

Enamelized paints, quick-drying paints, paints made with varnish, resins, or synthetic drying oils, and paints containing large proportions of tung oil (China wood oil). But paints of these compositions may be excellent as porch and deck paints, where mechanical wear is an important factor, and for trim and trellis use in such colors as red, green, blue, brown, and black, which are made from colored pigments only. Most house paints containing lithopone or zinc-sulfide pigment should be regarded with suspicion.

- Amber-Lyte** (Martin Varnish Co.). Except as noted above.
Martin's House Paint (Martin Varnish Co.).
Chi-Vo (E. I. duPont de Nemours & Co.).

(Cont'd next page)

NOT ACCEPTABLE—CONT'D

Conqueror (Jewel Paint & Varnish Co.).
Doublequick (Jewel Paint & Varnish Co.).
Ward's Zincite (Montgomery Ward).
Ward's Coverall (Montgomery Ward).
Sears' Serocote (Sears-Roebuck).
Family Brand (Sherwin-Williams Co.).
Gamble's Standard (Gamble Stores).
Kilbourn (Armstrong Paint & Varnish Co.).
Plasco (Pittsburgh Plate Glass Co.).

SHOE WHITENERS

Liquid dressings are most popular, but are apt to be hardest on shoes. Before each application of dressing, the shoe should be cleaned lightly with a cloth moistened (not soaked) with water. In the case of leathers such as buck and suede, it is important to brush up the nap after each application of whitener. The ratings given below from 1937 tests are based primarily on (1) absence of ingredients harmful to leather; (2) covering power; (3) economy.

Ref.: CU Reports, June 1937.

BEST BUYS

LIQUID

Knemark (Knemark Mfg. Co., Brooklyn). 3½ fl. oz., 10¢ at Kress stores; 25¢ bottle contained only 4½ fl. oz.
Shinola (2 in 1-Shinola-Bixby, NYC). 5¾ fl. oz., 25¢. One of two best liquid whiteners tested.
Harrison's White Plus (Harrison Products Co., Flushing, N. Y.). 4½ oz. bottle, 25¢. The other of the two best liquid whiteners tested.

PASTE

Griffin Allwhite (Griffin Mfg. Co., Brooklyn). 4 oz., 25¢. Highest quality of the paste whiteners tested.

CAKE

Shu-Sno (Shu-Sno Products Co., Spring Lane, Portsmouth, Ohio). ¼ oz., 10¢ at some shoe stores; also sold by mail, \$1 a doz. postpaid. Highest quality of cake whiteners.

ALSO ACCEPTABLE

LIQUID

Vans All White.
Carbona.
Energine.
No-Rub Shoe White.
Omega Sta-White.
White Ace Permanent.
Cavalier Nurse White.
Griffin Allwhite.

PASTE

Shu-Milk.
Ka-Bo Super.
Majestic.
Hollywood.
Knomark.
Shinola.

CAKE

Shinola.
Blanco.

TOILET PAPER

The papers listed below are rated on softness and on cost. Where packages were labeled with the weight rather than the number of sheets the quantity of the latter was found to vary over a wide range. With the exception of the *A&P Silk Tissue*, *A.P.W. Jr.* and *A.P.W. Finest Satin Tissue*, which had a somewhat glossy surface, all the samples had the usual crepe surface. Most of the listings are based on examinations by CU in 1938. Prices are current. Where found, the cost per M (per thousand sheets) is given.

BEST BUYS

Soft texture at low price:

Celtex (purchased at F. & W. Grand's). 5¢. 5¢ per M.
A&P Silk Tissue (A&P). 10¢. 5¢ per M. Smooth surface.
Co-op (Eastern Cooperative Wholesale, NYC). 5¢. 5¢ per M.
Daintee (A. Krasne, Inc.). 6¢. 6¢ per M.
Seminole (A&P). 6¢. 6¢ per M.
Pacific (A&P). 4¢. 7¢ per M.
Co-op Verisoft (Eastern Cooperative Wholesale). 7¢. 7¢ per M.
Red Cross (purchased at Royal Scarlet store). 8¢. 8¢ per M.
Scottissue (Scott Paper Co., Chester, Pa.) 8¢. 8¢ per M.
Seda (Gotham Tissue Corp., NYC). 8¢. 8¢ per M.
Statler (M. A. King Co., Somerville, Mass.). 8¢. 9¢ per M. Smooth surface.

ALSO ACCEPTABLE

Kiltie (purchased at S. S. Kresge's). 5¢.
Red Robin Antiseptic Silk (purchased at Kresge's). 10¢.
Challenge (purchased at J. J. Newberry's). 10¢.

(Cont'd next page)

230 TOILET PAPER

Superior Medicated (Wells River Mills). 18¢.

A.P.W. Jr. (A.P.W. Paper Co., Albany, N. Y.). 19¢. 9¢ per M. Smooth surface.

Swank (Veldown Co., NYC). 10¢. 10¢ per M.

A.P.W. Finest Satin Tissue (A.P.W. Paper Co.). 37¢. 14¢ per M. Smooth surface.

Venida (Rieser Co., NYC). 10¢. 11¢ per M.

Texlin (purchased at Woolworth's). 10¢. 14¢ per M.

Coarser texture:

Avalon (purchased at Krasdale's). 6¢. 6¢ per M.

Zalo (National Paper Products Co., NYC). 7¢. 7¢ per M.

Waldorf (Scott Paper Co.). 5¢. 8¢ per M.

White Rose (purchased at Krasdale's). 5¢. 5¢ per M.

Rexlin (purchased at Kresge's). 5¢. 11¢ per M.

Wild Goose (purchased at Kresge's). 5¢. 7¢ per M.

Fem (drugstores). 8¢. 9¢ per M.

Velvet (purchased at Whelan's). 8¢. 13¢ per M.

Silver Swan (M. A. King Co., Somerville, Mass.). 5¢.

Red Clover (purchased at J. J. Newberry's). 10¢.

Amoskeag (Manchester Paper Supply Co., Manchester, N. H.) 10¢.

NOT ACCEPTABLE

Texture too harsh:

Featherdown.

Floss-Tex.

Granada.

Lin-Tex.

Regul.

Viking.

Philips Superfine.

Bon Ton.

Bob White.

Ashuelot.

Blue Ribbon Finest Silk Medicated.

ALSO ACCEPTABLE

Radios

Sporting Goods

Miscellaneous

BICYCLES AND VELOCIPEDES

Like automobiles, bicycles are now "streamlined," available with front and rear brakes, equipped with balloon tires and even "knee action." Gadgets have been hung on the bicycle like decorations on a Christmas tree. Bumpers, stop lights and rear vision mirrors are common; electric horns and lights (some powered by "automatic" generators) have been widely adopted.

One result is that while a manufacturer may produce good basic parts, the added equipment may be of poor quality. In most cases the dealer himself has the privilege of specifying a number of items of equipment on the machines he orders.

It is to the advantage of the buyer, therefore, to know the makes of parts he wants and, where possible, to specify equipment known to be of high quality. Since it is impossible to discuss all the parts and special equipment in the *Buying Guide*, members are referred to the full report on bicycles and velocipedes in the May 1938 issue of the *Reports*. This report includes a discussion of wheels, rims, tires and tubes, pedals, saddles, handlebars, brakes and other accessories, with some brand ratings.

For the utmost in simple but sturdy frame construction, choose the straight bar or diamond frame bicycle or as close a replica as can be found.

Of the imported bicycles, English and Belgian products are very good but expensive. They are in general light in weight and some have two-wheel brakes and three-speed gears. Among the better foreign-made bicycles are the following: **Raleigh, B. S. A., Hercules, Royal Enfield, Pierce, Victor and Selback.**

The *Raleigh*, owing to its somewhat lower price, is judged

232 BICYCLES

to be a "Best Buy." *B. S. A.* makes one of the best of the racing bicycles.

The prices of the bicycles listed below will range from \$25 to \$50, but in most cases, due to the many styles and grades available from each company, prices are not given. Most makers put out special brands of cheaper and often flashy but skimpy construction, for use as price leaders—avoid them. Buy one of the manufacturer's regular lines, but order it without special gadgets and options. In other words, spend your money for the bicycle itself.

Ref.: *CU Reports*, May 1938.

BEST BUY

Arnold Schwinn Model BA67 (Arnold Schwinn & Co., Chicago). About \$27.50. Considered the "Best Buy" of the models sold by this company. Avoid models with knee-action front-wheel suspension.

ALSO ACCEPTABLE

Iver-Johnson (Iver Johnson Arms & Cycle Works, Fitchburg, Mass.). Model 86 H, single-bar, sells for \$35. The best of the American-made bicycles, but expensive.

Rollfast (Excelsior Mfg. Co., Michigan City, Ind.). Comes in many styles and sizes.

Hawthorne (distrib., Montgomery Ward). Practically identical with the *Rollfast* but prices are lower.

Columbia (Westfield Mfg. Co., Westfield, Mass.). General construction equal to that of the *Arnold Schwinn*, but price is higher.

Huffman (Huffman Mfg. Co., Dayton, Ohio). Not as well constructed as the *Arnold Schwinn*, but satisfactory. Avoid models with "Twin-Flex" spring suspended frame.

Elgin (distrib., Sears-Roebuck). Similar to the *Columbia* but the quality of some parts and the finish vary.

Shelby (Shelby Cycle Co., Shelby, Ohio). Frame of relatively poorer construction than bicycles listed above.

Evinrude Streamflow (Evinrude Mfg. Co., Milwaukee). A smooth-riding bike when new but parts had tendency to loosen up.

Roadmaster (Cleveland Welding Co., Cleveland). Emphasis on style features.

Colson Flyer (Colson Co., Elyria, Ohio). Frame construction skimpy. Parts difficult to obtain in some localities.

Mercury (Murray-Ohio Mfg. Co., Cleveland). Relatively poor frame construction and finish.

Silver King (Monark Silver King, Inc., Chicago). Has an all-aluminum pressed frame, a poor substitute for welded construction. Parts difficult to obtain.

NOT ACCEPTABLE

Steelcraft (Spiegel Bros.). Constructed almost entirely of Japanese parts of uniformly poor quality.

Samson (Oppelman, Inc.). Comments under *Steelcraft* apply.

VELOCIPEDES

Streamlining has resulted in weak construction, not only because of the impractical shapes evolved, but because the thin stamped or molded material used is flimsy and cracks readily. Some of these streamlined tricycles are dangerous in that the handlebar grips and wheel guards present sharp points and edges. After being in use for a short time the guards and fancy hub caps begin to rattle and fall off.

The old tubular single-bar frame still represents by far the most sturdy construction. Equipped with a strong, wide front-wheel guard for wet weather, such tricycles will outlast any streamlined contraption.

Ball-bearing wheels with adjustable spokes and solid rubber tires are best. Do not be misled by the false, sturdy appearance of wide balloon tires and heavy spokes and hubs. Most accessories may well be dispensed with.

In buying a velocipede bear in mind that a good one will last a number of years, and the child grows fast. Purchase as large a model as can be handled by the child. Pedal blocks may be used to raise the height of the pedals, and they can easily be removed later.

BEST BUY

Westfield (Westfield Mfg. Co., Westfield, Mass.). \$10 to \$12. Durably constructed.

ALSO ACCEPTABLE

(In estimated order of quality)

Iver-Johnson (Iver Johnson Arms & Cycle Works, Fitchburg, Mass.). By far the best made tricycle, but prices are high.

(Cont'd next page)

234 VELOCIPEDES, CAMERAS

Columbia (Westfield Mfg. Co.). Construction satisfactory.

Pierce (Emblem Mfg. Co., Angola, N. Y.). Good frame construction.

Fairy (Colson Co., Elyria, Ohio). Good tubular frame construction. Bearings relatively poor.

Rollfast No. 195 (Excelsior Mfg. Co., Michigan City, Ind.). \$10 to \$15, according to size.

Toledo Metal Wheel Co., Toledo, Ohio. Quality variable. Frame construction relatively poor. Weak wheel cones.

Pioneer (Gendron Wheel Co., Toledo). Quality variable. Weak front fork.

Steel Craft (Murray-Ohio Mfg. Co., Cleveland). Quality not uniform. Their tubular bicycles have weak wheels, but if handled carefully will last a fair length of time.

Silver King (Monark Silver King, Inc., Chicago). Construction design is excellent, but frame and fork are very soft.

CAMERAS AND PHOTOGRAPHIC EQUIPMENT

The merits and faults of various types of photographic equipment including cameras, exposure meters, enlargers, tripods, dark-room accessories, &c., are covered in CU's "Photographic Buyers' Handbook," published by Simon & Schuster, and available in bookstores for \$2.75. As the *Buying Guide* goes to press, the "Handbook" has just appeared. The special CU members' price of the "Handbook," consisting of more than 300 pages of brand name information, is \$1.50.

The great popularity of the miniature camera (negative size $2\frac{1}{4}$ inches square or smaller) has misled many persons into believing that the very small camera is the best camera in anybody's hands for all sorts of pictures. The best miniature cameras are expensive, the cheapest are apt to produce comparatively poor results, and all are to be avoided by the beginner. A less expensive larger camera is likely to produce better results in inexperienced hands than a more costly miniature. Besides experience in manipulating it, the miniature camera demands far greater care in negative processing. The purchase of an enlarger is also necessary unless one

wishes to pay considerable sums for commercial enlargements or is satisfied with tiny prints.

The "blind" miniature is being rapidly replaced by the ground-glass and the range-finder types. If a beginner must have a miniature, the reflex is to be recommended in preference to the other two kinds.

The ground glass is very useful whenever careful composing of the picture is required, and the double or triple extension of ordinary ground-glass cameras is indispensable for varied photographic work.

Great care should be exercised by the inexperienced amateur in the purchase of *used* cameras or lenses. No such camera or lens should be purchased except on a 10-day trial basis, and at least a dozen pictures of various subjects should be made with the apparatus as a test before purchase. The camera should be carefully checked for rigidity, smooth operation, and correct alignment of parts.

The humble box camera and the inexpensive Kodak or similar folding camera are not to be neglected in considering the purchase of a camera for occasional use. For the occasional snapshotter, the cheap box or folding camera is likely to give better results than the expensive camera with many adjustments requiring care and experience for proper use.

In the ratings of cameras and accessories below, E means an excellent buy, G a good buy, F a fair buy, and N.A. stands for "Not Acceptable" on the basis of price and quality within the price range. An excellent rating on a \$5 camera, for example, does not mean that it can make as good pictures as one costing \$100, with expert operation. Such a rating means simply that the \$5 camera is an excellent value in its price class. In some of the very low-priced cameras, where the lens aperture is not stated in the listings, it is generally f:11.

The prices given are list prices prevailing in New York City at the time of publication. Changes in price are very common, so that those given may, in some cases, no longer apply.

Ref.: *CU Reports*, June, July, August-September 1937 (including ratings of range finders, synchronizers, filters, and tripods, omitted from the *Buying Guide*), and August 1938. (Labor notes in July 1937.)

BRAND AND MODEL	NEGATIVE SIZE (IN.)	LENS	SHUTTER	PRICE (\$)	RAT- ING
NON-MINIATURE BLIND CAMERAS					
<i>Brownie Six-16 (Eastman)</i>	2½x4¼	<i>Diway</i>	1/25 sec.	3.75	E
<i>Brownie Six-20</i>	2¼x3¼	<i>Diway</i>	1/25 sec.	3.10	E
<i>Shur-Shot Special B2</i>					
(Agfa)	2¼x3¼	Meniscus	1/25 sec.	3.25	E
<i>Shur-Shot Special D6</i> ...	2¼x4¼	Meniscus	1/25 sec.	3.95	E
<i>Brownie Junior Six-16</i> ...	2½x4¼	Meniscus	1/25 sec.	2.85	G
<i>Brownie Junior Six-20</i> ...	2¼x3¼	Meniscus	1/25 sec.	2.35	G
<i>Shur-Shot Regular B2</i> ...	2¼x3¼	Meniscus	1/25 sec.	2.45	G
<i>Shur-Shot Regular D6</i> ...	2½x4¼	Meniscus	1/25 sec.	2.95	G
<i>Kodak Special Six-16</i> ...	2½x4¼	<i>Kodak Anastigmat f:4.5</i>	Kodamatic 1/10 to 1/200 to Compur Rapid 1 to 1/400 sec.	39 to 46	E
<i>Kodak Special Six-20</i> ...	2¼x3¼	<i>Kodak Anastigmat f:4.5</i>	Kodamatic 1/10 to 1/200 to Compur Rapid 1 to 1/400 sec.	35 to 39	E
<i>Jiffy Kodak Six-16</i>	2½x4¼	<i>Twindar</i>	1/25 sec.	9.50	G
<i>Jiffy Kodak Six-20</i>	2¼x3¼	<i>Twindar</i>	1/25 sec.	8.50	G
<i>Kodak Junior Six-16</i>	2½x4¼	<i>Kodak Anastigmat f:8.8</i> to f:4.5	Kodex 1/25 to 1/100 to Diomatic 1/25 to 1/150 sec.	15.50 to 29.50	G
<i>Kodak Junior Six-20</i>	2¼x3¼	<i>Kodak Anastigmat f:8.8</i>	Kodex 1/25 to 1/100 to Diomatic 1/25 to 1/150 sec.	13.50	G

<i>Kodak Junior Six-20</i>	2 1/4 x 3 1/4	<i>Kodak Anastigmat f:8.8</i> to f:4.5	<i>Kodex 1/25 to 1/100 to</i> <i>Diomatic 1/25 to 1/150</i> sec.	13.50 to 25	G
<i>Plenax Antar JN-99</i> (Agfa)	2 1/4 x 3 1/4	<i>Antar f:14</i>	1/25 sec.	11.75	G
<i>Plenax Antar LN-103</i>	2 1/2 x 4 1/4	<i>Antar f:14</i>	1/25 sec.	13	G
<i>Plenax Tripar JN-100</i>	2 1/4 x 3 1/4	<i>Tripar f:11</i>	1/25 to 1/100 sec.	13.25	G
<i>Plenax Tripar JN-104</i>	2 1/2 x 4 1/4	<i>Tripar f:11</i>	1/25 to 1/100 sec.	15	G
<i>Plenax Hypar JN-101</i>	2 1/4 x 3 1/4	<i>Hypar f:6.3</i>	1/25 to 1/100 sec.	17	G
<i>Plenax Hypar JN-105</i>	2 1/2 x 4 1/4	<i>Hypar f:6.3</i>	1/25 to 1/100 sec.	19.50	G
<i>Kodak Senior Six-16</i>	2 1/2 x 4 1/4	<i>Bimat to Kodak Anastig-</i> <i>mat f:4.5</i>	<i>Kodex to Kodamatic</i> 1/10 to 1/200 sec.	19.25 to 32	G
<i>Kodak Senior Six-20</i>	2 1/4 x 3 1/4	<i>Bimat to Kodak Anastig-</i> <i>mat f:4.5</i>	<i>Kodex to Kodamatic</i> 1/10 to 1/200 sec.	15 to 28	G
<i>3A Kodak</i>	3 1/4 x 5 1/2	<i>Kodak Anastigmat f:6.3</i> to f:4.5	<i>Diodak 1/10 to 1/100 to</i> <i>Compur 1 to 1/200 sec.</i>	42.50 to 71	G

NON-MINIATURE GROUND-GLASS CAMERAS

<i>Ideal A (Zeiss)</i>	2 1/4 x 3 1/4	<i>Zeiss Tessar f:4.5</i>	<i>Compur 1 to 1/250 sec.</i>	95	E
<i>Ideal B (Zeiss)</i>	3 1/2 x 4 3/4	<i>Zeiss Tessar f:4.5</i>	<i>Compur 1 to 1/200 sec.</i>	115	E
<i>Speed Graphic (Graflex)</i>	2 1/4 x 3 1/4 to 3 1/4 x 4 1/4	<i>Kodak Anastigmat f:4.5</i> to <i>Anticomar f:2.9</i>	<i>Focal Plane</i> 1/10 to 1/1000 sec.	113.75 to 200	E
<i>Miniature Speed Graphic</i>	2 1/4 x 3 1/4	<i>Kodak Anastigmat f:4.5</i> to <i>Zeiss Tessar f:3.5</i>	<i>Focal Plane</i> 1/10 to 1/1000 sec.	111 to 141	E

238 CAMERAS

BRAND AND MODEL	NEGATIVE SIZE (IN.)	LENS	SHUTTER	PRICE (\$)	RAT- ING
<i>Linhof</i> Standard (Burleigh Brooks)	2 1/4 x 3 1/4 to 3 1/2 x 4 3/4	Schneider Xenar f:4.5 to Zeiss Tessar f:4.5	Compur 1 to 1/200 sec.	135 to 200	E
<i>Bee Bee</i> (Burleigh Brooks)	2 1/4 x 3 1/4 or 3 1/4 x 4 1/4	Schneider Radionar f:4.5 to Zeiss Tessar f:3.5	Compur 1 to 1/200 or 1 to 1/250 sec.	45 to 75	G
<i>Maximar</i> (Zeiss)	2 1/4 x 3 1/4 or 3 1/4 x 4 1/4	Zeiss Tessar f:4.5	Compur 1 to 1/200 sec.	58 to 67	G
<i>Kodak Recomar</i> 18.....	2 1/4 x 3 1/4	Kodak Anastigmat f:4.5	Compur 1 to 1/250 sec.	54	F
<i>Kodak Recomar</i> 33.....	3 1/4 x 4 1/4	Kodak Anastigmat f:4.5	Compur 1 to 1/250 sec.	63	F
<i>Kaweco "Patent Etui"</i> (Brooks)	2 1/4 x 3 1/4 to 3 1/4 x 4 1/4	Schneider Radionar to Zeiss Tessar f:4.5	Compur 1 to 1/200 sec.	47 to 67.50	F
NON-MINIATURE REFLECTING CAMERAS					
<i>Graflex</i> Series D Revolving Back	3 1/4 x 4 1/4 4x5	Kodak Anastigmat f:4.5 to Anticomar f:2.9 Kodak Anastigmat f:4.5 to Zeiss Tessar f:3.5	Focal Plane 1/5 to 1/1000 sec. Focal Plane 1/5 to 1/1000 sec.	133 to 216 157 to 279	E
<i>Auto Graflex</i> Revolving Back	3 1/4 x 4 1/4 4x5	Kodak Anastigmat f:4.5 to Cooke Avitar f:4.5 Schneider Xenar f:4.5 to Cooke Avitar f:4.5	Focal Plane 1/5 to 1/1000 sec. Focal Plane 1/5 to 1/1000 sec.	165.50 to 264.50 232.50 to 296.50	E
<i>Graflex</i> Series B.....	5x7	Kodak Anastigmat f:4.5	Focal Plane 1/5 to 1/1000 sec.	178.50	N.A. ¹

91 to N.A.¹
Focal Plane
Kodak Anastigmat f:4.5
2 1/4 x 3 1/4
N.A.¹

Graflex Series B 2 $\frac{1}{4}$ x 3 $\frac{1}{4}$
Revolving Back to 4x5

Kodak Anastigmat f:4.5

Focal Plane
1/5 to 1/1000 sec.

91 to N.A.¹
128

35 MM. RANGE FINDER CAMERAS

<i>Argus C2</i>	<i>Cintar</i> f:3.5	<i>Micromatic</i> 1/5 to 1/300 sec.	E	25
<i>Contax II</i> (Zeiss)	<i>Tessar</i> f:3.5 to <i>Sonnar</i> f:1.5	Focal Plane	E	168 to 288
<i>Leica III-b</i> (Leitz)	<i>Elmar</i> f:3.5 to <i>Xenon</i> f:1.5	1/2 to 1/1250 sec. Focal Plane	E	150 to 270
<i>Retina II</i> (Eastman)	<i>Schneider Xenar</i> f:2.8 to <i>Xenon</i> f:2	1 to 1/1000 sec. <i>Compur Rapid</i>	E	115 to 140
<i>Tenax</i> (Zeiss)	<i>Tessar</i> f:2.8 to <i>Sonnar</i> f:2	1 to 1/500 sec. <i>Compur Rapid</i>	E	153 to 183
<i>Nettax</i> (Zeiss)	<i>Tessar</i> f:2.8	1 to 1/400 sec. Focal Plane	G	145
<i>Dollina II</i> (Burleigh Brooks)	<i>Schneider Radionar</i> f:2.9 to <i>Xenon</i> f:2	1/5 to 1/1000 sec. <i>Compur Rapid</i>	G	55 to 80
<i>Dollina III</i>	<i>Schneider Xenar</i> f:2.8 to <i>Xenon</i> f:2	1 to 1/500 sec. <i>Compur Rapid</i>	G	80 to 97.50
<i>Super Dollina</i>	<i>Xenar</i> f:2.8 to <i>Xenon</i> f:2	1 to 1/500 sec. <i>Compur Rapid</i>	G	82.50 to 100

¹ Camera front lacks rigidity.

BRAND AND MODEL	NEGATIVE SIZE (IN.)	LENS	SHUTTER	PRICE (\$)	RAT- ING
Super Baldina (Willoughby)		Meyer Trioplan f:2.9 to Xenon f:2	Compur 1 to 1/300 or Compur Rapid 1 to 1/500 sec.	65 to 92	G
Weltini (Burke & James)		Cassar f:2.9 to Xenon f:2	Compur 1 to 1/250 or Compur Rapid	79.50 to 106.50	G
Bantam Special (Eastman)		Ektar f:2	Compur Rapid 1 to 1/500 sec.	87.50	F
RANGE FINDER CAMERAS LARGER THAN 35 MM.					
Super Ikonta A (Zeiss) .. $1\frac{3}{8} \times 2\frac{1}{4}$		Zeiss Tessar f:3.5	Compur Rapid 1 to 1/500 sec.	110	E
Super Ikonta B	$2\frac{1}{4} \times 2\frac{1}{4}$	Zeiss Tessar f:2.8	Compur Rapid 1 to 1/400 sec.	140	E
Baldaxette I or II	$1\frac{5}{8} \times 2\frac{3}{4}$	Trioplan f:2.9 to Zeiss Tessar f:2.8	Compur 1 to 1/250, Com- pur Rapid 1 to 1/400 sec.	84 to 105	G
Weltur (Burke & James) .. $1\frac{3}{4} \times 2\frac{1}{4}$		Cassar f:2.9 to Zeiss Tes- sar f:2.8	Compur Rapid 1 to 1/400 sec.	79.50 to 99.50	G
Rangefinder Super .. $2\frac{1}{4} \times 2\frac{1}{4}$ or		Schneider Xenon f:2.8 to	Compur or Compur Rapid	65 to 82.50	G
Sport Dolly	$1\frac{5}{8} \times 2\frac{1}{4}$	Zeiss Tessar f:2.8			
TWIN LENS REFLEX MINIATURES					
Reflecta	$2\frac{1}{4} \times 2\frac{1}{4}$	Triolar f:4.5 to Meyer Trioplan f:3.5	Stelo 1/25 to 1/100 to Compur 1 to 1/300 sec.	22.50 to 45	E

Rolleicord II .. $2\frac{1}{4} \times 2\frac{1}{4}$ Zeiss Triotar f:3.5 Compur 1 to 1/300 sec. 65

Rolleicord II	2 1/4 x 2 1/4	Zeiss Triotar f:3.5	Compur 1 to 1/300 sec.	65	E
Voigtlander Superb	2 1/4 x 2 1/4	Skopar f:3.5	Compur 1 to 1/250 sec.	85	E
Rolleiflex Automatic	2 1/4 x 2 1/4	Zeiss Tessar f:3.5	Compur Rapid	130	E

SINGLE LENS REFLEX MINIATURES

Reflex-Korelle II	2 1/4 x 2 1/4	Rationar f:2.9 to Tessar f:2.8	Focal Plane 2 to 1/500 sec.	102.50 to 124.50	E
Exakta B	1 1/2 x 2 1/4	Exaktar f:3.5 to Primoplan f:1.9	Focal Plane 12 to 1/1000 sec.	85 to 260	G
Pilot 6 (Burligh Brooks)	1 1/2 x 2 1/4	f:6.3	Special 1/20 to 1/150 sec.	16	G
National Graflex II	2 1/4 x 2 1/4	B & L Tessar f:3.5	Focal Plane 1/30 to 1/500 sec.	87.50	F
Exakta Junior	1 1/2 x 2 1/4	Ihagee f:4.5	1/25 to 1/500 sec.	50	F

BLIND MINIATURE CAMERAS (35 MM. unless otherwise indicated)

Kodak Bantam	1 1/2 x 1 1/8	Kodalinear f:8 to Anastigmat Special f:4.5	Kodak 1/25 to Kodak 1/250 to 1/200 sec.	4.75 to 27.50	E
Baby Broenig (Eastman)	1 1/2 x 2 1/4	Meniscus	1/25 sec.	1	G
Jiffy Kodak	1 1/2 x 2 1/4	Kodak Doublet	1/25 sec.	4.75	G
Duo Six-20 (Eastman)	1 1/2 x 2 1/4	Kodak Anastigmat f:3.5	Compur Rapid	57.50	G
Perflex (Candid Camera Corp.)	...	f:3.5 or f:2.8	Focal Plane 1/25 to 1/500 sec.	25 to 35	E
Candid Midget	...	f:4.5	Vario 1/25 to 1/100 sec.	21.50	E
Kodak 35	...	Anastigmat f:5.6 to f:3.5	Diomatic to 1/50 to Kodamatic to 1/200 sec.	18.50 to 39.50	E
Univex Mercury	...	Tricolor f:5.5	Rotary 1/20 to 1/1000	25	G

SUNGLASSES

Sunglasses under \$1 generally have blown glass lenses which often contain serious optical defects. CU recommends that you avoid the cheaper glasses, and that you spend \$1 or more for sunglasses having ground and polished lenses, which are much more likely to be of good optical quality.

This recommendation should certainly be followed if the glasses are to be worn for long periods of time or for work requiring concentrated visual attention (such as reading or driving a car). For lying on the beach or for occasional wear for brief periods, cheap glasses with only minor imperfections may prove acceptable, but they should certainly be discarded if a headache or other indication of eyestrain follows their use.

At any rate, since higher price merely brings higher probability of satisfactory lens quality without offering complete assurance, it is well to examine each pair carefully before purchase. To see that the glasses are free from obvious optical flaws, hold them at least a foot away from your eyes and look through each glass separately at an object (at least a foot farther away) which has a small, regular, over-all pattern. A piece of screening, a window, a checked or striped fabric, or a geometrically patterned oilcloth, wallpaper or floor covering will do. Reject any glasses which cause the pattern to appear blurred or distorted, shifted to one side, smaller or larger than normal. As a further test, rotate the glass while looking at something round. The object should not bulge, but should remain circular in appearance.

Color in sunglasses is largely a matter of personal taste, but many doctors suggest plain gray as causing a minimum distortion of color values.

Celluloid blinkers are not recommended. All the cheap ones examined showed serious optical defects.

Polaroid lenses have the special property of selectively reducing glare due to reflected light. They are very effective for reflections from horizontal surfaces such as beach sand, water, wet pavements and polished table tops. Polaroids have no advantage over other dark glasses as protection against direct illumination (for example, direct sunlight or glare from approaching headlights).

Samples of the brands listed met the Federal specifications except as noted, and are rated "Acceptable."

Ref.: CU Reports, July 1938.

ACCEPTABLE

Columbia (Columbia Protektosite Co., Carlstadt, N. J.). 98¢.

Note lower rating of cheaper glasses of Columbia manufacture.

American Optical Co. (Southbridge, Mass.). \$1 and up. Calobar lenses in higher-priced glasses. But examine carefully; one lens of one pair showed considerable prism power (displacement of field of vision).

Optilene (Marine Optical Mfg. Co., Boston). \$1.94. Sample had prism power slightly in excess of Federal specifications.

Optical Products Corp. (NYC). \$4.50. Sample tested had prism power slightly in excess of Federal specifications.

Ray-Ban (Bausch & Lomb, Rochester, N. Y.). \$5.25 including case.

Samples of the following brands showed at least one defect (lens power, prism power or astigmatism) in excess of the Federal specifications. Samples of these brands should be selected with special care and, unless free from defects, should be purchased only for casual use. Several of the manufacturers below also make glasses with ground and polished lenses (more expensive) which were not tested by CU.

Polaroid (American Optical Co.). \$3.75. Special lenses which selectively reduce glare due to reflected light (see text).

Azurine (American Spectacle Co., NYC). 59¢ and \$1.39 including cases.

All-Season and Four-Season Goggles. 20¢ and 29¢.

Bachmann Bros. (Philadelphia). 15¢, 29¢, 39¢. Also manufacture *Solarex* lenses.

Columbia (Columbia Protektosite Co.). 25¢ to 50¢. Also manufacture *Cerulite* lenses. Sample at 98¢ met Federal specifications—see preceding group.

Protex (Protex Goggles, Inc., NYC). 29¢.

Sunex (Lapin-Kurley Kew, Inc., NYC). 23¢.

Sun Shade, labeled also *Pyrallart* and *Fosta* (Foster-Grant Co., Leominster, Mass.). 20¢.

Welshade (Welsh Mfg. Co., Providence, R. I.). 10¢ and 20¢.

Willson (Willson Products, Inc., Reading, Pa.). 29¢, 39¢, 49¢.

Miscellaneous cheap glasses (10¢ to 20¢) of unidentified manufacture from the 5-8-10, &c. Must be selected with extreme care. Several samples showed particularly bad lenses.

Blinker-type sunglasses (see text).

CIGARETTES

An investigation by CU, including smoking as well as chemical tests, led to the conclusion that there is little perceptible difference between the various brands of *any one type* of cigarette, and that if you are interested in economy, you can safely buy the cheapest brand of the type you prefer.

Although 10¢ brands may have a slightly larger proportion of stems, rolled out paper thin, and then mixed with the leaf, stem so treated generally burns as well as leaf. Smoking tests under controlled conditions, with the brand names hidden, indicated no particular preferences on the part of the smokers among the 15¢ brands or between 10¢ and 15¢ brands of the same type.

The considerably greater sale of 15¢ brands is due to habit and advertising rather than to any distinguishable quality factors. The typical pack-a-day smoker thus pays about \$18 a year extra in order to smoke well-advertised brands.

A COMPARISON OF CIGARETTE BRANDS

In the following table, strength of smoke is based on the judgment of a tobacco expert. There is no relationship between strength and nicotine content. Nor is a strong cigarette necessarily irritating. The type of tobacco was determined by inspection by CU's tobacco consultant. The types are: American blend (A); flue-cured (F); predominantly Turkish (T); and American blend plus extra Turkish (AT).

BRAND AND MANUFACTURER	APPARENT TYPE	APPROX. PRICE FOR 20 (¢)	NICOTINE CONTENT (%)	FLAVORING	STRENGTH
<i>Aralon</i>	A	10	2.0	present	strong
<i>Camel</i>	A	14	1.9	present	strong
<i>Carl Henry</i>	A	28	1.0	slight	mild
<i>Chesterfield N. C.</i> ¹	A	14	2.3	present	strong
<i>Chesterfield Va.</i> ¹	A	14	2.3	present	mild
<i>Domino</i>	A	10	2.1	present	strong
<i>Egyptian Prettiest</i>	T	18	1.3	none	mild

¹ Several brands, in addition to *Chesterfield*, have their production spread over two or more factories in different parts of the country.

BRAND AND MANUFACTURER	APPARENT TYPE	APPROX. PRICE FOR 20 (¢)	NICOTINE CONTENT (%)	FLAVORING	STRENGTH
<i>English Ovals</i>	A	25	2.2	present	strong
<i>Fatima</i>	AT	15	1.9	present	strong
<i>Helmar</i>	T	20	1.5	present	strong
<i>Herbert Tareyton</i>	A	15	2.0	present	strong
<i>Home Run</i>	"	13	2.8	present	strong
<i>Johnnie Walker</i>	F	18	1.9	present	strong
<i>Kool</i>	A	15	2.1	menthol	mild
<i>Lord Salisbury</i>	T	15	1.4	slight	mild
<i>Lucky Strike</i>	A	14	2.0	present	strong
<i>Marlboro</i>	A	18	2.3	none	mild
<i>Marvels</i>	A	10	2.1	present	strong
<i>Melachrino</i>	T	30	1.3	slight	mild
<i>Murad</i>	T	30	1.1	present	mild
<i>Old Gold</i>	A	14	2.0	present	strong
<i>Pall Mall Georges</i>	T	45	1.5	slight	mild
<i>Pall Mall "Modern Blend"</i>	A	15	2.1	none	mild
<i>Paul Jones</i>	A	10	1.9	present	mild
<i>Philip Morris</i>	A	15	2.2	present	strong
<i>Piedmont</i>	A	14	2.6	present	strong
<i>Players Navy Cut</i>	F	20	1.6	none	mild
<i>Raleigh</i>	A	14	1.8	present	strong
<i>Rameses II</i>	T	35	1.2	none	mild
<i>Sano</i>	A	25	0.8	present	mild
<i>Spud</i>	A	15	2.6	menthol	mild
<i>Sweet Caporal</i>	A	14	2.1	slight	mild
<i>Tally Ho</i>	"	15	1.9	present	mild
<i>Twenty Grand</i>	A	10	2.5	present	strong
<i>Viceroy</i> ²	A	15	1.8	present	strong
<i>Virginia Rounds</i>	F	18	2.2	none	mild
<i>Wings</i>	A	10	1.9	present	strong

¹ *Home Run* and *Tally Ho* do not conform to any of the common types.

² The tip of rolled paper on this cigarette is a less efficient filter than the same length of cigarette tobacco. The tips do prevent particles of tobacco from getting into the mouth.

FILTER HOLDERS

The best kind of filter holder is one with a mouthpiece and, detachable from it, a barrel into which a cigarette or a plug of cotton can be inserted to act as filter. Of this type, the Zeus is the most expensive and its "special aluminum" barrel does no better than many other barrels made of plastics and other materials. The essential thing is that at some point in the barrel or the mouthpiece the filter cigarette should make a tight fit. Filter holders of this type eliminate about 60% of the nicotine that would be present in the unfiltered smoke.

Another kind of filter holder (e.g., *Denicotea*) uses a cartridge of absorbent material which is not quite as good.

"DENICOTINIZED" CIGARETTES

The so-called denicotinized cigarettes most widely sold in this country are the *Sano* and *Carl Henry*, each of which contains about 1% nicotine—that is, about half as much as ordinary American-blend cigarettes. The advertising for these cigarettes stating that "the nicotine is out," is false.

Cigarette "strength" is not related to nicotine content, for the nicotine content of untreated West Indian leaf is even less than that of "denicotinized" cigarettes. Yet cigarettes made of it affect the smoker as "strong."

Ref.: *CU Reports*, July 1938.

CIGARS

The cigars rated below, in addition to being tested by a tobacco expert for taste and aroma, were torn apart and examined for construction and type of wrapper, binder and filler. Retesting has changed the rating of some of the brands. Prices are current.

Ref.: *CU Reports*, December 1937.

BEST BUYS

(Listed alphabetically)

Antonio & Cleopatra. 4½ in. 10¢.

Blackstone. Londres. 10¢. 3 for 25¢.

Blackstone. Panatela. 2 for 15¢.

Bollaci. Panatela. 5¢.

Dutch Masters. Perfecto. 10¢.

Harvard. Londres. 10¢.

Manatia. Perfecto. 4¾ in. Clear Havana. 5¢.

Muriel. Perfecto. 5¢.
Number 27 Carl Upmann. 10¢.
Pippin. Londres. 5¢.
7-20-4. Londres. 10¢.
S. Seidenberg DeLuxe. "After Dinner." 5 in. Mild. 5¢.
Tops. Panatela. 4½ in. Mixed Havana. Highly recommended for price and quality. 2¢.
Webster. Panatela. 10¢.

ALSO ACCEPTABLE

Admiration Smiles. Perfecto. 4¼ in. 10¢.
Cremo. Perfecto. 3 for 10¢.
Cuban La Primadora. Panatela. 5 in. Havana. Too soft and too high priced. 10¢.
Dubonnet. 5¢. Advertised as "10¢ size for 5¢." Not 10¢ quality.
El Producto. "Domino." 5 in. 2 for 25¢.
Garcia Grande Golden Leaf. 4½ in. Mild. 5¢.
Girard. Perfecto. Not mild. 5¢.
Haddon Hall. Perfecto. 10¢.
Harvester. Perfecto. Mild. 5¢.
Havana Ribbon. Londres. 3 for 10¢.
King Edward. 2 for 5¢.
La Coronado. Panatela. 4¼ in. Havana, good but cigar is too small for the price. 5¢.
Natural Bloom. Londres. 4¾ in. Short Havana filler. 5¢.
Optimo. Havana, but short filler. 5¢.
Palmitas. 4¾ in. Havana, but short filler. 5¢.
Ricoro. 5¢.
Robert Burns. Perfecto. Havana filler. 10¢.
Slendorita. Panatela. 5¢.
Ten Ten. Panatela. 10¢.
Webster. Invincible. 10¢.
White Owl. Invincible. 5¢.

NOT ACCEPTABLE

Elektra. Perfecto. Bad taste and smell. 3 for 25¢.
Garcia Grande Queen. 5½ in. Bad taste. 5¢.
La Palina. Panatela. Bad taste. Formerly 10¢, now 5¢.
Orlando. Media perfecto. Bad taste. 5¢.
Phillies. Perfecto. Bad taste. 5¢.
Rothschild. Bad taste and bad smell. 5¢.
Tampa Nugget. Perfecto. Bad taste, bad smell, short filler. 5¢.
United Sports. Panatela. 4½ in. Bad taste, smell. 5 for 10¢.

DRY CLEANING

Dry-cleaning service ranges from good to very bad, and a high price does not assure a good job. Because of the highly local nature of the dry-cleaning business, ratings of cleaners cannot be given. In *CU Reports*, October 1938, there is detailed information as to what a good dry-cleaning job should include, but space does not permit a complete summary here.

The individual consumer can only partially judge the quality of dry-cleaning work. You will probably not be able to answer the fundamental question of how well dirt has been removed, especially in the case of dark garments. But you can tell whether the garment has been carefully pressed; you can and should examine it for spots, for residual odor, for lint and dirt in pockets and cuffs, for damage to color or fabric, for shrinkage or stretching, for unmade repairs, for missing ornaments or trimmings. Any evidence of a poor job or damage is cause for complaint.

Standards and specifications accurately defining good dry cleaning work are available. Standards, however, are useless until they are enforced.

Dry cleaners certified by the Institute for Maintaining Dry-cleaning Standards of the United States and Canada may be worth trying. A list of them may be obtained from the Institute at 254 West 31 St., NYC.

Ref.: *CU Reports*, October 1938.

FLASHLIGHT BULBS

BEST BUY

Mazda (General Electric and Westinghouse). 5¢ bulbs. Gave more service per dollar than the 10¢ *Mazdas*.

ALSO ACCEPTABLE

Mazda. 10¢ bulbs.

NOT ACCEPTABLE

Japanese. 5¢ or less. Uniformly short-lived; variable in brilliance.

FLASHLIGHT CELLS

The best 5¢ cells tested gave more service per dollar than those higher in price. But the "Acceptable" 10¢ cells may be

better buys where long life is more important than service per dollar.

Cells deteriorate with age even when not in use. Buy from dealers with rapid turnover.

Ref.: *CU Reports*, June 1937. (Labor notes included.)

GARDEN METHODS AND MATERIALS

An article on vegetable seeds, seed treatment, soil preparation and fertilizers appeared in the April 1939 issue of the *Reports*. In the May *Reports* the subject of insect and disease control was covered.

For discussion of nursery stock see CU's special report, "The Purchase and Use of Nursery Stock." 50¢.

ALCOHOLIC BEVERAGES

CU has published a 126-page special report, which includes all of the following ratings plus information on a great many additional brands; discussion and ratings of foreign wines and suggestions for mixing; notes on judging and buying of liquors. Special report on *Wines and Liquors*, 1939 Edition, 50¢.

DOMESTIC WINES

AMERICAN-TYPE WINES

ACCEPTABLE

(In approximate order of quality)

Garrett & Co., *Virginia Dare*, *Paul Garrett*.

Vineyardists, Inc., *Vintner's*.

Taylor Wine Co., *Taylor's*.

FOREIGN-TYPE WINES

—FORTIFIED

ACCEPTABLE

(In approximate order of quality)

Colonial Grape Products Co. of Calif., *Cordova*, *Casa Grande*.

K. Arakelian, Inc., *Mission Bell*, *Madera*.

Bisceglia Brothers, *Paradise*, *Bisceglia de Luxe*.

Shewan-Jones, Inc., *S-J*.

(Cont'd next page)

250 LIQUOR

Italian Swiss Colony, *Italian Swiss Colony, Gambarelli & Divito.*

California Grape Products, *Mendocino, Vinoro.*

Fruit Industries, Ltd., *Olympic, Guasti.*

Roma Wine Co., *La Boheme, Cella.*

Beaulieu Vineyard, *Beaulieu.*

NOT ACCEPTABLE

The following are "Not Acceptable," because of poor quality, or variation:

Monarch Wine Co., *Cavern, Old Monarch.*

Eastern Wine Corp., *Chateau Martin, Jean Gould.*

Geffen Industries. Chiefly private brands.

Spellman-Samuels. Chiefly private brands.

—DRY RED

ACCEPTABLE

(In approximate order of quality)

Italian Swiss Colony, *Italian Swiss Colony, Gambarelli & Divito.*

Colonial Grape Products Co. of Calif., *Cordova, Casa Grande.*

Beaulieu Vineyard, *Beaulieu.*

Bisceglia Brothers, *Paradise, Biscelgia de Luxe.*

California Grape Products Co., *Mendocino, Vinoro.*

Fruit Industries, Ltd., *Olympic, Guasti.*

K. Arakelian, Inc., *Mission Bell, Madera.*

Roma Wine Corp., *La Boheme, Cella.*

B. Cribari & Sons, *San Benito.*

Shewan-Jones, Inc., *S-J.*

NOT ACCEPTABLE

The following are "Not Acceptable" because of poor quality, or variation:

Monarch Wine Co., *Cavern, Old Monarch.*

Eastern Wine Corp., *Chateau Martin, Jean Gould.*

Geffen Industries. Chiefly private brands.

Spellman-Samuels. Chiefly private brands.

—DRY WHITE

ACCEPTABLE

(In approximate order of quality)

Beaulieu Vineyard, *Beaulieu.*

Colonial Grape Products Co. of Calif., *Cordova, Casa Grande.*

Shewan-Jones, Inc., *S-J*.
 K. Arakelian, Inc., *Mission Bell, Madera*.
 Bisceglia Brothers, *Paradise, Bisceglia de Luxe*.
 California Grape Products Co., *Mendocino, Vinoro*.
 Fruit Industries, Ltd., *Olympic, Guasti*.
 Roma Wine Co., *La Boheme, Cella*.
 B. Cribari & Sons, *San Benito*.

NOT ACCEPTABLE

The following are "Not Acceptable" because of poor quality, or variation:

Monarch Wine Co., *Cavern, Old Monarch*.
 Eastern Wine Corp., *Chateau Martin, Jean Gould*.
 Geffen Industries. Chiefly private brands.
 Spellman-Samuels. Chiefly private brands.

LIQUORS

MATURED AMERICAN WHISKEYS

BEST BUYS

Old Taylor Kentucky Bourbon. \$3.79 a qt. 4 years old.
Glenmore's Kentucky Tavern Bourbon. \$3.64 a qt. 6 years old.
Old Crow Kentucky Bourbon. \$3.51 a qt. 4 years old.

ALSO ACCEPTABLE

Mt. Vernon Straight Rye. \$3.39 a qt. 4 years old. (Mt. Vernon distillation only.)
Golden Wedding Blended Bourbon. \$3.09 a qt. Actually a blend of aged bourbon whiskeys, all over 4 years old, each of which could have been individually bottled in bond.
Old Overholt Rye. \$2.89 a pt. 12 years old.
Old Grand-Dad Kentucky Straight Bourbon. \$3.79 a qt. 4 years old.
Belmont Bonded Bourbon. \$3.29 a qt. 4 years old.
Old Overholt Straight Rye. \$3.39 a qt. 4 years old.
Old Schenley Pennsylvania Straight Rye. \$3.39 a qt. 7 years old.

(Cont'd next page)

BLENDS

Blends of whiskeys with spirits containing appreciable amounts of aged whiskeys.

BEST BUYS

Seagram's Five Crown Blended. \$1.25 a pt.

Park & Tilford Reserve. \$1.23 a pt.

ALSO ACCEPTABLE

Calvert's Reserve Blended. \$1.48 a pt.

Seagram's Seven Crown Blended. \$1.55 a pt.

Hunter Baltimore Rye. \$1.34 a pt.

NOT ACCEPTABLE

The young whiskey taste in these was too prominent.

Wilson, That's All. \$1.20 a pt.

Schenley's Black Label Blended. \$1.49 a pt.

Calvert's Special. \$1.20 a pt.

YOUNG UNBLENDED WHISKEYS

BEST BUYS

Park & Tilford Kentucky Bred. \$1.13 a pt.

Old Quaker Pennsylvania Straight Rye. \$1.08 a pt.

Silver Dollar of Lincoln Inn Straight Bourbon. \$1.05 a pt.

ALSO ACCEPTABLE

Cream of Kentucky Straight Bourbon. \$1.08 a pt.

Windsor Straight Bourbon. 96¢ a pt.

Mattingly & Moore Blended Rye. \$1.14 a pt.

Glenmore Kentucky Straight Bourbon. \$1.14 a pt.

Crab Orchard Kentucky Straight Bourbon. \$1.03 a pt.

Mayflower Straight Rye. \$1.08 a pt.

Old Farm Brand Pennsylvania Straight Rye. \$1.25 a pt.

NOT ACCEPTABLE

The following brands are "Not Acceptable" because of defects in maturity.

Town Tavern Straight Rye. 99¢ a pt.

Hiram Walker's Twin Seal Rye. \$1.05 a pt.

Hiram Walker's Ten High Straight Bourbon. \$1.05 a pt.

BLENDS OF YOUNG WHISKEYS WITH SPIRITS

ACCEPTABLE

National's Eagle Blended. \$1.19 a pt.

The Wilken Family Blended. \$1.05 a pt.

Green River Blended. \$1.04 a pt.

NOT ACCEPTABLE

Schenley's Red Label Blended. \$1.19 a pt. Young whiskey taste predominant.

Old Drum. \$1.03 a pt. Not smooth.

BLENDS OF STRAIGHT WHISKEYS

No "Best Buys" are given, since low-priced American bonded ryes represent better values.

ALSO ACCEPTABLE

Four Roses Rye. \$1.69 a pt.

Schenley's Golden Wedding Rye. \$1.59 a pt.

Park & Tilford Private Stock Rye. \$1.53 a pt.

Paul Jones Four Star. \$1.57 a pt.

NOT ACCEPTABLE

Old Methusalem. \$1.57 a pt. Slightly woody flavor.

SCOTCH WHISKY

—RETAILING UNDER \$4 A FIFTH

BEST BUYS

John Begg Blue Cap. \$2.89 a fifth.

Harvey's Special. \$2.99 a fifth.

Martin's V.V.O. \$3.39 a fifth.

ALSO ACCEPTABLE

Ballantine's. \$3.79 a fifth.

Whiteley's House of Lords. \$3.69 a fifth.

Teacher's Highland Cream. \$3.49 a fifth.

Black & White. \$3.39 a fifth.

Peter Dawson's Special. \$3.39 a fifth.

Usher's Green Stripe. \$2.99 a fifth.

Grand MacNish. \$3.49 a fifth.

Cutty Sark. \$3.76 a fifth.

White Horse. \$3.39 a fifth.

Vat 69. \$3.39 a fifth.

(Cont'd next page)

NOT ACCEPTABLE

- Haig & Haig 5 Star.* \$3.39 a fifth. Sharp smell, little flavor.
Dewar's White Label. \$3.39 a fifth. Sharp smell and flavor, with poor development.
Hankey Bannister Liqueur. \$3.99 a fifth. 12 years old.
Johnnie Walker Red Label. \$3.39 a fifth. Sharp and thin.
Glen Ghillie. \$2.09 a fifth. Very smoky; flavor poor.
Hankey Bannister Liqueur. \$3.39 a fifth. 8 years old. Light and immature; somewhat sharp.

GIN

BEST BUYS

Private Label 90 proof grain gins, selling below \$1.20 a fifth.

ACCEPTABLE

- Milshire Distilled Dry.* \$1.60 a fifth.
Gilbey's Distilled London Dry. \$1.56 a fifth.
Burnett's White Satin. \$1.55 a fifth.
Schenley Silver Wedding. \$1.54 a fifth.
Gordon's Distilled London Dry. \$1.70 a fifth.
G&W Distilled London Dry. \$1.55 a fifth.
Fleischmann's Distilled Dry. \$1.59 a fifth.
Booth's High and Dry. \$1.47 a fifth.
Holloway's Distilled London Dry. \$1.40 a fifth.
Calvert's Distilled London Dry. \$1.42 a fifth.
Seagram's King Arthur Distilled London Dry. \$1.45 a fifth.
Hiram Walker's London Dry. \$1.52 a fifth.

NOT ACCEPTABLE

Any gin distilled from cane. While theoretically a good gin can be produced from cane alcohol, actually no highly refined cane spirits are available.

- Old Mr. Boston.* \$1.65 a fifth. Heavy and poorly balanced.
McKesson Silver Pheasant. \$1.46 a fifth. Sharp.
Balfour Distilled London Dry. \$1.19 a fifth. Sharp.

MECHANICAL PENCILS

Prices of mechanical pencils bear little relation to quality. Pen-and-pencil combinations and 2-color pencils are usually unsatisfactory.

Ref.: *CU Reports*, March 1938.

BEST BUYS

Scripto Model MS-1 (*Scripto Co.*, Atlanta, Ga.). 25¢. Takes 4-in. leads. Has space for 7 extra leads.

Wearever (stationery and 5-&10-cent stores). 25¢. Model with large reservoir holding 12 4-in. leads.

Kreko (*S. H. Kress* stores). 25¢. Takes 4-in. leads. Has large lead reservoir with 6 extra leads.

ALSO ACCEPTABLE

Wahl Eversharp (*The Wahl Co.*, Chicago). 59¢. Takes 4-in. leads. Space for extra leads.

Velvet (*American Lead Pencil Co.*, Hoboken, N. J.; 5-&10-stores). 10¢. Takes 4-in. leads. No lead reservoir.

Wearever. 10¢. Takes 4-in. leads. Has no lead reservoir.

Scripto 10¢. Takes 4-in. leads. Has no lead reservoir.

Rite-Rite (*Rite-Rite Mfg. Co.*, Chicago). 10¢. Takes 4-in. leads. Has no lead reservoir.

Mongol No. 38 (*Eberhard Faber Pencil Co.*, Brooklyn). 25¢. Takes 4-in. leads. No lead reservoir.

Autopoint (*Autopoint Co.*, Chicago). *Realite* models 25¢ and 35¢. Other models 60¢ and 75¢. All use short leads except the 60¢ model which takes 4-in. leads. Special instructions for loading must be followed.

Sheaffer Fineline (*W. A. Sheaffer Pen Co.*, Fort Madison, Iowa). \$1. Lead reservoir and eraser too small.

Chilton (*Chilton Pen Co.*, Long Island City, N. Y.). \$2 to \$3.50. Nothing to warrant high price.

NOT ACCEPTABLE

Kreko Pencil and Pen Combination. 25¢. Will take only ½-in. leads.

REPEATING PENCILS

ACCEPTABLE

Esterbrook Push Pencil (*Esterbrook Pen Co.*, Camden, N. J.).

\$1. Holds 18 short leads which are fed into the point one after the other by pressing the top of the pencil. Inside mechanism easily removed for adjustment or repairs. Well made, but some tendency for lead to break while writing.

Eversharp Repeating Pencil (*The Wahl Co.*). Models at \$1.50 and \$2. Holds 12 extra leads which are fed into the point one after the other by pressing the top of the pencil. Inside mechanism not readily removable for repairs.

FOUNTAIN PENS

A good pen need not cost more than \$3. Any amount above this goes for decoration, advertising costs and extra profits.

Many large pens hold very little ink. Almost all pens, good as well as poor, begin to flood or leak badly when the ink reaches a low level. All pens should be refilled frequently enough to keep the ink at a fairly high level. Ink capacity should preferably be not less than 1.5 cc.

No pen-pencil combination sets are listed, as they are of little value. Ink capacity is very small, and storage space for leads is inadequate.

Ref.: *CU Reports* and *Western CU Supplement*, December 1938. (Labor notes included).

BEST BUYS

Waterman's Junior (L. E. Waterman Co., Newark, N. J.).

\$2.50. Ink capacity 1.5 cc. Good grade iridium-tipped gold point. Pen point well set and adjusted. Good workmanship.

Sheaffer (W. A. Sheaffer Pen Co., Fort Madison, Iowa).

\$2.75. Lever type. Ink capacity 1.5 cc. Gold point, good grade iridium-tipped. Available with either plunger or lever-type filler. Plunger type has larger ink capacity, but greater tendency to leak.

Waterman's Ideal No. 3. \$3. Gold point. Ink capacity 1.6 cc. An exceptionally smooth-writing pen.

ALSO ACCEPTABLE

(In estimated order of merit)

Waterman's Ideal No. 32A. \$3. Ink capacity 1.4 cc.

Wahl Eversharp Oxford (The Wahl Co., Chicago). \$1.25. Ink capacity low, 1.1 cc.

Parco (Parker Pen Co., Janesville, Wis.). \$1.25. Ink capacity 1.5 cc.

Parker Challenger (Parker Pen Co.). \$2.75. Ink capacity low, 1 cc.

Waterman's Vacuum Fill. \$5. Ink capacity 2.8 cc.

Parker Vacumatic. \$5. Ink capacity 2.7 cc.

Carter's (Carter Ink Co., Boston). \$2.50. Ink capacity 1.5 cc.

Wahl Eversharp. \$3.50. Ink capacity low for size of pen, 1.2 cc.

Penco (J. C. Penney stores). 50¢. Ink capacity 1.4 cc.

Esterbrook (Esterbrook Pen Co., Camden, N. J.). \$1. Ink

ALSO ACCEPTABLE—CONT'D

capacity 1.4 cc. Stainless steel point. Steel points feed ink somewhat less satisfactorily than gold or gold-plated ones. \$1.50 pen of somewhat better materials not worth additional cost. Replaceable steel points, 25¢. Osmiridium-tipped refill (50¢) not satisfactory.

Wearever Iridium Tip (distrib. Woolworth's and other 5-&-10-cent stores). 25¢. Ink capacity 1.4 cc.

Kreko (S. H. Kress stores). 25¢. Ink capacity low, 1.1 cc.

Fifth Avenue (Woolworth's). 29¢. Ink capacity low, 0.9 cc.

Wasp Clipper (Wasp Pen Co., subsidiary of Sheaffer Pen Co.). \$1.95 (sold by Cooperative Distributors, NYC, for \$1.65). Ink capacity low, 0.7 cc.

Ink-D-Cator (Inkograph Co., NYC). \$1. Ink capacity 1.5 cc. Very similar to the *Wallace* pen sold through some Woolworth stores for 30¢.

Ink-D-Cator. \$2. Ink capacity low, 1.2 cc.

Wallace (Inkograph Co., NYC; sold in Woolworth's). 30¢. Ink capacity low, 1.2 cc. Very similar to *Ink-D-Cator*.

Majestic¹ (sold in Emporium stores). 79¢ including spare point and rubber sac. Ink capacity low, 0.9 cc.

NOT ACCEPTABLE

Wearever (W. T. Grant stores). 59¢. Ink capacity 1.4 cc.

Vis-O-Pen (Aiken-Lambert Co., subsidiary of L. E. Waterman Co.). \$1. Ink capacity 1.4 cc.

Wearever Small Size (distrib., S. S. Kresge stores). 20¢. Very low ink capacity, 0.5 cc.

Onward (Grand stores). 25¢. Very low ink capacity, 0.7 cc.

Varsity (Walgreen). 50¢. Very low ink capacity, 0.5 cc.

Inkograph (Inkograph Co.). \$1.39. Tubular point construction not recommended for general writing purposes.

Ambassador¹ (sold at Sontag's). \$1. Ink capacity low, 1 cc.

Underwood Pen and Pencil Set¹ (Remington Pen Co.) 79¢. Ink capacity 3.2 cc.

Welsharp Combination Pen and Pencil (Welsh Mfg. Co.). 25¢. Ink capacity extremely low, 0.4 cc.

¹ Available in the West only.

1939 RADIOS AND RADIO-PHONOGRAPHS

Unless otherwise indicated in the ratings, all models are of conventional design with short-wave bands and push-button tuning. A number of the models listed in the section on radio-phonographs can also be bought without the phonograph equipment. Purchasers primarily concerned with tone quality should consider only those models which are listed as having high fidelity. The high-fidelity models listed are satisfactory only for reception of strong local stations transmitting programs of good tone quality. For reception of distant stations, or in rural areas, the conventional design is necessary.

RADIO SETS

A large cabinet (preferably console size) is necessary for really good tone quality. Small cabinets and speakers reproduce deep bass notes poorly and are responsible for the poor musical performance of many table and most midget radios. Armchair cabinets sacrifice tone quality for convenience and decorative qualities, and are definitely inferior to the corresponding consoles. Provision for tone control is important.

Within each group, sets are listed in order of merit. Limitations and special features of each set are noted. Unless otherwise indicated, all models are for 110 to 120 volts a-c only. Unless the ac-dc feature is needed, a-c models give better performance and are better buys than ac-dc models.

Ref.: *CU Reports*, December 1938. (Labor notes included.)

MIDGET SETS UP TO \$15

None of these sets compares in performance with higher-priced models. Tone quality particularly is much poorer, although the better ones will give adequate reproduction of speech. All models cover the broadcast band only. Models with push-button tuning are so indicated.

BEST BUYS

Transitone Model TH-4 (Philco Radio & Telev. Corp., Philadelphia). \$9.95. 5 tubes (no ballast tube). Ac-dc. Tone quality superior to that of *Emerson* AX-211.

BEST BUYS—CONT'D

Emerson Little Miracle Model AX-211 (Emerson Radio & Phon. Corp., NYC). \$9.95. 5 tubes (no ballast tube). Ac-dc. Model CJ-211, also \$9.95, is claimed to have the same chassis and carries the approval of Underwriters' Laboratories, Inc.

ALSO ACCEPTABLE

Ward's Airline Cat. No.—288 (Montgomery Ward). \$12.95 plus shipping charges. 6 tubes including tuning eye. A-c only. Push-button tuning for six stations. Satisfactory except for a deficiency in bass tones.

Zenith Model 6D311, Chassis 5646 (Zenith Radio Corp., Chicago). \$14.95. 5 tubes plus ballast tube. Ac-dc. Best performance of those in this group.

NOT ACCEPTABLE

Detrola Model 208 (Detrola Radio & Telev. Corp.). \$9.95. 5 tubes plus ballast tube. Ac-dc.

Sears' Silvertone Cat. No. 6110 (Sears-Roebuck). \$12.95 plus shipping charges. 5 tubes. A-c only. Push-button tuning for six stations.

Majestic Charlie McCarthy (Majestic Radio & Telev. Co.) \$17.45. 5 tubes plus ballast. Ac-dc. Acceptable only as a novelty.

TABLE MODELS FROM \$15 TO \$30

While still not good musical instruments, many sets in this price range have larger cabinets and better tone than the midgets below \$15. Only models so marked have short-wave bands or push buttons.

BEST BUYS

Lafayette Model C-29 (Wholesale Radio Service Co., NYC). \$25.95 plus shipping charges.¹ 7 tubes including tuning eye. A-c only. Push-button tuning for six stations. Three bands. Model CC29 with an extra tube in tuning eye circuit has several other changes including a larger (8") speaker and no push buttons. Claimed by manufacturer to have better tone. Price of CC29, \$28.95 plus shipping charges.

Majestic Model 511. \$18.95. 5 tubes. A-c midget. No tone

¹ Available at same price from Cooperative Distrib., NYC, Cat. No.—C4666.

BEST BUYS—CONT'D

control but relatively good tone quality (better than *Majestic* Model 551).

Philco Model 39-7 (Philco Radio & Telev. Corp., Philadelphia). \$23.50. 5 tubes. A-c only. Push-button tuning for five stations. Tone quality is good for size.

ALSO ACCEPTABLE

G.E. Model GD-52 (General Electric Co., Bridgeport, Conn.). \$22.50. 5 tubes plus ballast tube. Ac-dc. Push-button tuning for five stations. Tone only fair. A good buy only where the ac-dc feature is necessary. For a-c operation *Philco* Model 39-7, at \$23.50 is a better buy.

Majestic Model 551. \$24.50. 5 tubes. A-c only. Two bands. Tone fair—but inferior to Model 511.

G.E. Model GE-52. \$29.50. 5 tubes. A-c only.

Philco Model 39-17T. \$29.95. 5 tubes. A-c only. Apparently the same chassis as *Philco* Models 39-6 and 39-7 except for differences in push-button tuning. Not as good a value as the 39-7 at \$23.50. Console Model 39-17F, \$39.95, poor value.

NOT ACCEPTABLE

Zenith Model 5S319, Chassis No. 5529. \$29.95. 5 tubes. A-c only.

Emerson Model CA-234. \$29.95. 5 tubes plus ballast tube. Ac-dc.

SETS FROM \$30 TO \$50

At this price there are available large table models and several consoles with a relatively high order of performance. The mail-order sets have three bands, tuning eyes and other features of nationally advertised brands at \$50 and up.

BEST BUY

Sears' Silvertone Cat. No.—6024. \$34.95 plus shipping charges. 8 tubes including tuning eye. Large a-c table model. Push-button tuning for eight stations. Three bands. This model has been discontinued in the Sears-Roebuck Spring-Summer 1939 mail-order catalogs, but is still available in Sears' retail stores as Model 6129.

ALSO ACCEPTABLE

Stewart-Warner Model 91-621 (Stewart-Warner Corp., Chicago). \$39.95. 6 tubes including tuning eye. A-c table model. Push-button tuning for five stations. Two bands. In console cabinet as Model 91-627, \$59.95—relatively poor.

Philco Model 39-19T. \$35. 5 tubes. A-c table model. Same as the 39-17T plus a foreign short-wave band. In console cabinet as Model 39-19F at \$49.95—a relatively poor value.

Philco Model 39-25T. \$45. 5 tubes. A-c table model. Two bands. Push-button tuning for eight stations. Available also as console Model 39-25XF at \$59.95.

NOT ACCEPTABLE

RCA Victor Model 96T. \$29.95. 6 tubes. A-c table model.

RCA Victor Model 96K. \$49.95. 6 tubes. A-c console. The same rating applies to table Model 96T2.

SETS FROM \$50 TO \$100

This price range includes consoles with larger speakers, generally better tone quality and, in most cases, somewhat better cabinet work. Unless otherwise indicated all models cover broadcast, police-amateur and foreign bands.

BEST BUYS

Sears' Silvertone Cat. No.—6038. \$77.50 plus shipping charges. 13 tubes including two tubes in the tuning eye circuit. A-c console. Push-button tuning for eight stations. Broadcast and foreign short-wave bands. Of all sets tested, this is best for short-wave reception.

Lafayette Model BB-86. \$59.95 plus shipping charges.² 11 tubes including tuning eye. A-c console cabinet. Push-button tuning for six stations.

Zenith Model 6S362. \$59.95. 6 tubes. A-c console. Push-button tuning for six stations. "Best Buy" for the price among all non-mail-order-house sets tested. Available also in an armchair-type cabinet as Model 6S341 at the same price.

ALSO ACCEPTABLE

Lafayette Model C-53. \$82.50 plus shipping charges. 15 tubes including two in tuning eye circuit. A-c console. Push-button

² Available at same price from Cooperative Distributors, NYC, Cat. No. 4668.

ALSO ACCEPTABLE—CONT'D

- tuning for six stations. Four wave bands. The corresponding models are CC53, console at \$87.50, and CC51, \$69.50 plus shipping charges in table model with smaller (10") speaker.
- Philco** Model 39-40XX. \$103 including antenna. 8 tubes. A-c console. Push-button tuning for eight stations. Two bands.
- Zenith** Model 7S363, Chassis 5714. \$69.95. 7 tubes including tuning eye. A-c console. Push-button tuning for six stations. Not a good buy in other cabinets at higher prices.
- G.E.** Model G-66. \$69.95. 6 tubes. A-c console. Push-button tuning for six stations. Available also as a large table model, G-61 for \$59.95, relatively less desirable, however.

NOT ACCEPTABLE

- Majestic** Model 739. \$79.95. 7 tubes including tuning eye. A-c console.
- Majestic** Model 939. \$89.95. 9 tubes including tuning eye. A-c console.

SETS OVER \$100

These sets offer little more than those in next lower group.

ACCEPTABLE

- RCA Victor** Model 910KG. \$125. 10 tubes including magic eye. A-c console. Motor-driven push-button tuning for eight stations.
- Philco** Model 39-55RX, "Mystery Control." \$162.50 including antenna. 11 tubes (only six tubes are active in the receiver proper). A-c console. "Acceptable" for those who care to pay close to \$100 extra for the Mystery Control. Tone quality good, but much better can be obtained for the price.

BATTERY SETS

CU has not been able to test many battery sets and so can give no comparative ratings. The set described here has been tested and rates as "Acceptable."

- Philco** Model 39-71-T. \$33.45 with tubes and batteries. A portable receiver, using four (special-type) tubes, batteries and a built-in loop antenna. Broadcast band only. Excellent sensitivity and selectivity.

REMOTE-CONTROL UNIT

NOT ACCEPTABLE

Kadette Tunemaster Model KRC-2 (International Radio Corp.). \$25. 5 tubes. Ac-dc wireless-type remote-control unit for any radio. Not recommended because of generally unsatisfactory operation.

RADIO-PHONOGRAPH COMBINATIONS*

A radio with separate record player properly connected to it will give the same performance as if built into a combination. The record player should have a cover which can be closed while in operation. "Wireless-type" record players need no connection to the radio but with them tone quality is limited by the radio tuner and special circuits in the record player. They may also be heard on other people's radios. None of those tested by CU was found to be generally satisfactory.

Preliminary data on needles indicate that "Shadow-graphed" steel needles (*RCA Red Seal* and *Actone*) are among the most satisfactory. The less expensive regular steel needles (such as *Victor Full Tone*) are fairly satisfactory although they are not individually inspected for defective points. A new steel needle should be used for each 12-inch side. For automatic record changers, a more permanent needle is necessary. *RCA* chromium needles (green shank) seem to be of satisfactory quality.

Additional information indicates that *Recoton* needles, listed tentatively as satisfactory in the *January Reports*, are not satisfactory from the point of tone quality—they give poor reproduction of certain parts of the tonal range. Permanent needles such as the *Walco* sapphire are judged to give excessive record wear with ordinary inexpensive pickups used in record players or combinations. Pickups satisfactory for use with permanent needles cost about \$125. Good steel needles changed with each record are judged to be more satisfactory for the average user. Fiber or other nonmetallic needles give relatively poor reproduction. Although they do reduce needle scratch, they also eliminate much of the treble.

Radio-phonograph models marked with an asterisk are rated on the basis of listening tests by qualified technicians, supple-

* Includes a few "high-fidelity" radio models which can be used with separate record players.

mented by technical data on design. All other ratings are based, in addition, on CU's laboratory test data. "Acceptable" models are listed within general price classes with information on the class of service for which each is suitable, and with comparisons to other sets of the same type.

LOW-PRICED COMBINATIONS

Combinations selling for about \$50 or less are not satisfactory musical instruments. Most of them use 5- or 6-tube radios which are sold by their manufacturers as small table models for approximately \$25 or less. Many of them have no covers, or their covers cannot be closed to reduce mechanical noise while the instrument is playing. Many of them use the same motor and pickup as the RCA record player listed below. A particular model may be judged in terms of CU's rating where there is one of the corresponding radio, together with a careful listening test to determine whether tone quality is as good on the phonograph as on the radio. The models listed are good values considering their low prices.

ACCEPTABLE

(Order is in terms of price and has no other significance)

Sears' Silvertone Cat. No.—6028 (Sears-Roebuck). \$24.95 plus shipping charges. 5 tubes. A-c table model radio-phonograph.

Lafayette Model C-13 (Wholesale Radio Service Co., NYC). \$52.50 plus shipping charges. 7 tubes. A-c table model radio-phonograph. Radio Model C-29 (page 259).

\$85 TO \$100

ACCEPTABLE

(Order is in terms of price and has no other significance)

Lafayette Model BB-48. \$99.50 plus shipping charges. 11 tubes. A-c console radio-phonograph. Model BB-35 with **Garrard** record changer, \$124.50. Radio Model BB-86 (page 261). Judged a "Best Buy" for those who do not live near strong, high-fidelity stations, or those who want relatively good radio and phonograph tone but must also have short-wave reception.

Macy's Own Model MB-43* (R. H. Macy & Co., NYC). \$89.50. 8 tubes. A-c low-boy console model radio-phonograph

with manual record player. Tone quality fair, but not comparable to special high-fidelity sets listed. Phonograph performance excellent for this price. Phonograph better, but radio not so good as *Lafayette* BB-48.

RCA Symphony Model HF1* (RCA Mfg. Co., Camden, N. J.). \$125, list price. Local station "high-fidelity" receiver with provision for separate phonograph record player. No manual tuning; push buttons for eight stations. Manufacture of this set has been discontinued, but where available for approximately \$85, a good buy. Best tone quality of sets examined at this price level, but performance is satisfactory only in metropolitan areas.

NOT ACCEPTABLE

Philco Model 39-19PF (Philco Radio & Television Corp.). \$99.50. Available also as table model 39-19PT at \$79.50 with similar rating. 5 tubes. A-c console radio-phonograph.

\$125 TO \$250

ACCEPTABLE

(Order is in terms of price and has no other significance)

Lafayette Model C-33. \$134.50 plus shipping charges. Model C-32, \$159.50 with *Garrard* automatic record changer. 15 tubes. A-c console radio-phonograph. Tone quality of phonograph slightly superior to that of radio. Bass response not clear. Tone quality considered inferior to the *Magnavox* *Hepplewhite* Model and the *RCA* Model U-126. Poorer value than either. Current models (see changes listed under corresponding radio model C-53, page 261) are CC-33 at \$139.50 and CC-32 at \$169.50.

Magnavox Hepplewhite* (Electro-Acoustic Products Co., Fort Wayne, Ind.). \$145 with manual record player; \$170 with *Garrard* record changer. 8 tubes. A-c radio-phonograph. Do not confuse with 7-tube *Hepplewhite* Model at \$145 with automatic record changer. Push-button tuning. Radio performance fairly good; not checked on short-wave bands. Tone quality good. Separate bass and treble tone controls. Phonograph performance better than radio.

RCA Victrola Model U-126. \$155 including antenna and \$9 worth of records. Model U-128 with *RCA* automatic record changer is \$185. 10 tubes. A-c console radio-phonograph. Radio Model 910 KG rated on page 262. Standard radio design—performance somewhat better than *Lafayette* BB-48;

ACCEPTABLE—CONT'D

tone quality also better. Considered "Acceptable" for the same conditions, but price makes it a poorer buy.

WQXR High Fidelity Radio* (Interstate Broadcasting Co., Station WQXR, NYC; manufactured by Ansley Radio Co., NYC). \$135. 11 tubes. Ac-dc console radio. Space in cabinet for *Ansley* record player—see listing of *Ansley* Model D-25 (\$30 extra for a-c and \$35 for ac-dc). No short-wave bands or push buttons. Tone quality excellent. Available undistorted volume should be adequate for home use, but because of ac-dc design it is lower than that of a-c sets in this price range. Broad-sharp tuning adjustment. "Best Buy" for those in d-c localities; for a-c the *Philharmonic Futura* Model may be worth the \$30 difference in price.

Philharmonic Futura Model (Philharmonic Radio Co., NYC). \$128 with bass and treble speakers. Cabinets extra—\$39.50 up. 12 tubes. A-c radio, *Garrard* manual record player built in, \$29 extra. *A true high-fidelity set for local reception from high-quality broadcast stations only and a "Best Buy" for those living in metropolitan areas near strong, high-fidelity stations.* Best tone quality of any set rated except *Philharmonic Linear Standard*. Separate bass and treble tone controls.

Scott Super XII* (E. H. Scott Radio Labs., Chicago). \$129.50 plus cabinet. 12 tubes. A-c radio with optional phonograph equipment. Cheapest radio cabinet, \$25 extra; cheapest cabinet with provision for record player, \$79.50; record player, \$29.50 extra. An all-purpose receiver with high sensitivity, short-wave bands and fairly high volume. Separate bass and treble tone controls. Not a true high-fidelity instrument, but tone quality compares favorably with the best conventional sets in its price class, and tonal range is adequate for phonograph records and most broadcasts. The *Scott-Phantom*, at \$219, with the \$25 radio cabinet, has several advantages including 3-point selectivity control.

Philharmonic Linear Standard Model (Philharmonic Radio Co., NYC). \$176 including two speakers, plus \$39.50 up for cabinet. 14 tubes. A-c radio. Built-in *Garrard* manual record player, \$29 extra. Uses the same radio tuner as the *Philharmonic Futura* Model, but has an improved amplifier, and a somewhat better bass speaker. Refinements justify the extra cost for the critical listener, but the *Futura* Model gives reproduction which most people find aurally perfect.

ACCEPTABLE—CONT'D

Ansley Dynaphone Model D-25 (Ansley Radio Corp., NYC). \$210. 15 tubes. Ac-dc radio-phonograph. No push buttons. Selectivity adequate only for local or relatively strong stations. "Best Buy" for those living in d-c districts (usually metropolitan) who want short-wave reception. Not so good a buy for a-c but compares favorably with the *Magnavox Hepplewhite Model*. Cabinet work excellent.

Model D-21 at \$175 has a less-selective tuner covering only the broadcast and foreign short-wave bands. Possibly subject to greater radio interference, but a better buy than D-25 for metropolitan areas having strong local stations.

NOT ACCEPTABLE

G.E. Model G-68 (General Electric Co.). \$139.95. 6 tubes. A-c console radio-phonograph. Radio programs came through while phonograph was playing.

Stewart-Warner Concert Grand* (Stewart-Warner Corp.). \$114. 8 tubes. A-c console radio with provision for separate record player. "Not Acceptable" as high-fidelity receiver, though it compares favorably in tone quality with conventional radios at the price.

RECORD PLAYERS

All models are for 110-120 volts, 60 cycles, a-c only. All but the Sparton and Wilcox-Gay are available from mail-order houses listed above as sources for pickups. Prices are less postage.

BEST BUY

Garrard Model AC-8A (Garrard Engineering & Mfg. Co., Ltd., Swindon, England). \$18.09, less cabinet. Motor, turntable and pickup mounted on a 14x16-inch metal plate.

ALSO ACCEPTABLE

RCA Victrola Model R-93 (RCA Mfg. Co., Camden, N. J.). \$14.95 with \$9 worth of Victor records to members of the "Victor Record Society." Mail-order price without records about \$9. Wired type. Easily attached to some RCA Models, but others usually require a serviceman's help. Good tone quality if properly connected to a good radio. Open type with hand-starting motor and very small turntable. Motor hum and needle vibration audible.

NOT ACCEPTABLE

Sparton Model 219-P (Sparks-Withington Co.). List price for the open model, \$25.95 with microphone for home "broadcasting." Closed model, 219-PD, \$29.95. Bass poor. Excessively strong radio signal if aerial is strung out full length.

Wilcox-Gay (Wilcox-Gay). Open model list price, \$19.95. Closed Model A57, \$29.95. Wireless type. Tone quality only fair, deficient in high notes.

AUTOMOBILE RADIOS

The use of an auto radio entails an added current drain on the car battery of from $4\frac{1}{2}$ to 9 amperes. If the radio is used much, the charging rate of the generator should be advanced unless the car is equipped with automatic current or voltage regulation. In any event, battery life will be shortened.

Aerials are important for satisfactory operation, the best types being these three:

1. The type that projects up and over the center of the top.
2. Buggy-whip type (fastened to the door hinge).
3. Fish-pole type (fastened to the rear bumper).

Runningboard and under-car antennas rarely give as satisfactory performance as the types listed above. The aerial must have good clearance of the car to get the best pickup and the least motor noise.

Insist that the radio be installed so as to eliminate pickup of electrical noise from the car's ignition system. The buyer has every right to expect relatively noise-free reception; it can easily be had with proper installation in the more recent cars, and with slight extra care in most older models. The noise-reducing effect of variable sensitivity control is much overrated. Such control is not necessary for good reception, and its presence or absence should not influence one's purchase.

Ref.: *CU Reports*, October 1937. (Includes ratings of twelve 1937 models from \$29.95 to \$69.50.)

RADIO ANTENNAS

A report on antennas, eliminators, and couplers appeared in *CU Reports* April 1938.

RADIO TUBES

There is at present (Spring 1939) no general trend toward the use of either glass or metal tubes in new radio equipment.

It is not necessary to replace all tubes at regular intervals. Tubes, like electric light bulbs, fail one at a time, as a rule, and only defective tubes need be replaced. Learn how to remove the tubes in your radio for testing, as you may thus be able to save the expense of service calls.

Ratings are based mainly on uniformity of characteristics, dependability, and operating life for tubes of each brand. It is impossible to rate each of the hundred or more types of tubes available in each brand. *Ratings are in order of quality without regard to price.*

Ref.: *CU Reports*, June 1937.

BEST BUYS

Sylvania (Hygrade Sylvania Corp., Emporium, Pa.).

Radiotron (RCA Mfg. Corp., Radiotron Division, Harrison, N. J.). Also made for General Electric and sold as G.E.

ALSO ACCEPTABLE

National Union (National Union Radio Corp., NYC).

Arcturus (Arcturus Radio Tube Co., Newark, N. J.).

Raytheon (Raytheon Production Corp., Newton, Mass.).

Ken-Rad (Ken-Rad Tube & Lamp Corp., Owensboro, Ky.).

Triad (Triad Mfg. Co., Pawtucket, R. I.).

Tung-Sol (Tung-Sol Lamp Works, Newark, N. J.).

Philco (made for Philco Corp., Philadelphia).

NOT ACCEPTABLE

Zenith (made for Zenith Radio Corp.). Variable in quality.

Sears' Silvertone (made for Sears-Roebuck). Quality inconsistent; Sears-Roebuck adjustment policy unsatisfactory.

Ward's Airline (made for Montgomery Ward). Variable.

Lafayette (made for Wholesale Radio Service Co.).

Knight (made for Allied Radio Corp.).

"Seconds" (rejected tubes) sold under special brands by some manufacturers.

PORTABLE TYPEWRITERS

A report on portable typewriters is scheduled to appear in *CU Reports* early in the Fall of 1939. The last report on this subject appeared in November 1937.

Index

A-B electric range.....	191	AMMONAL tablets.....	118
A.D.S. cold tablets.....	118	Ammonia, household.....	209
A&J can opener.....	174	AMOCAT pouches.....	15, 17
—egg beaters.....	176, 177	—peas.....	27
AMC shirts, men's.....	130	—tomatoes.....	80
A&P asparagus.....	18	AMOCO motor oil.....	100, 106
—corn.....	21, 23	AMOLIN deodorant.....	95
—fruits for salad.....	13	AMOSKEAG toilet paper.....	230
—peaches.....	15	AM-PHEN-AL.....	119
—peas.....	27	AMPYDIN.....	119
—string beans.....	25	AMYLOFENE COMPOUND.....	119
—toilet paper.....	229	AMYTAL COMPOUND.....	119
—tomatoes.....	31	ANACIN tablets.....	118
A.P.W. toilet papers.....	239	ANACONDA paint.....	225
ABRAHAM & STRAUS soap.....	93	ANALGIA tablets.....	118
ABSCO string beans.....	28	ANALKA mouthwash.....	76
ABSORBINE JR., antiseptic.....	103, 113	ANDERSON tea.....	54
ACE bedspring.....	100	ANDRE maceira.....	66
ACE dog food.....	42	ANDRE'S permanent wave.....	77
Aestantid.....	102, 117	ANDRON prophylactic.....	123
Aetophenotidin.....	117	ANGELUS lipstick.....	75
ACME preserves.....	49	ANITA depilatories.....	70
Acne, treatment of.....	121	ANNA MYER'S preserves.....	47, 49, 50
ACTONE phonograph needles.....	283	ANN PAGE baked beans.....	20
ADAM hats, men's.....	134	—cocoa.....	39
ADLER-I-KA.....	109, 110	—maple syrup.....	46
ADMIRATION shampoo.....	89	—preserves.....	47, 48, 50
ADMIRATION SMILES cigars.....	247	—tomato juice.....	32
Agar.....	108	ANSLEY radio-phonograph.....	267
AGAROL laxative.....	110	Antenna eliminators.....	268
AGNES MACGREGOR cream.....	59	Antennas, radio.....	268
—face powder.....	79	Anti-freeze.....	159
AIMEE soaps.....	95, 96, 98	Antiseptics.....	102, 115
AIR-WAY vacuum cleaner.....	205	ANTONIO & CLEOPATRA	
ALADDIN tomato juice.....	84	cigars.....	246
ALBODON tooth powder.....	82	Ants, insecticides for.....	220, 223
ALBOLENE face cream.....	59	ANTZIS, insecticide.....	222
AL-CAROID.....	102	A-PENN motor oil.....	105, 109
Alcohol, as anti-freeze.....	180	Apricots, canned.....	11
Alcoholic beverages.....	249	APRIL SHOWERS face powder.....	79
ALEMITE motor oil.....	168	AQUA VELVA shaving lotion.....	92
ALKALINE-BELTZER.....	102	ARAKELIAN, K., wines.....	249, 250, 251
Alkalizers.....	102, 106	ARCTURAS radio tubes.....	209
ALKA-BELTZER.....	102, 107, 114	ARDELL razor blades.....	89
ALKA ZANE.....	102, 107, 114	ARDENA face cream.....	59
ALL GOLD fruits for salad.....	13	ARDENA SUN-PROF cream.....	95
ALL GOOD asparagus.....	18	ARDEN'S REDUCER.....	117
ALLIGATOR raincoat.....	149	ARDSLEY shirts, men's.....	135
ALL-NU insecticide.....	222	ARDSLEY soap.....	97
ALLONAL.....	119	ARGOIL motor oil.....	100, 107
ALL-SEASON sunglasses.....	243	ARGUS camera.....	239
ALLSPORT sneakers.....	149	ARGYROL.....	106
ALWAY face cream.....	59	ARMAND face cream.....	59
—lipstick.....	74	—rouge.....	85
ALOPHEN laxative.....	110	ARMOUR'S baked beans.....	29
ALPO anti-freeze.....	181	—tomato juice.....	32
ALTA VILLA string beans.....	28	ARMSTRONG inner tubes.....	172
ALTMAN'S soaps.....	96, 97	ARMSTRONG paint.....	227
ALUMIN-NU metal cleaner.....	211	ARNOLD sleeping suit.....	128
AMBASSADOR fountain pen.....	237	ARNOLD CONSTABLE soap.....	96
AMBASSADOR shorts.....	143	ARROW handkerchiefs.....	133
AMBER-LYTE paint.....	227	—shirts, men's.....	135, 136
AMBROBIA face lotion.....	57	—shorts, men's.....	138
—hand lotion.....	72	—undershirts, men's.....	139
AMERICAN BEAUTY cora.....	31	ARTCURL permanent wave.....	77
AMERICAN HOME tomato juice.....	52	Arthritis, treatment of.....	150
AMERICAN OPTICAL CO.,		ARVIN auto heater.....	183
sunglasses.....	243	ASCO tons.....	54, 56
AMERTAN.....	104	ASHUELOT toilet paper.....	230
AMIDOCOL.....	119	Asparagus, canned.....	18
AMIDOL.....	119	ASPEN LAX laxative.....	110
AMIDO-NEONAL.....	119	Aspirin.....	102, 105, 117
AMIDOS.....	119	Asthma.....	117
AMIDOTAL COMPOUND.....	119	ASTOR tea.....	58
AMIDOVAL.....	119	Astringents, facial.....	57
AMINO-SABD.....	119	ASTRING-O-SOL mouthwash.....	79
AMINO-BARBITAL.....	119	—tooth powder.....	83
Aminopyrine.....	117	Athlete's foot, treatment of.....	112
AMMO cleanser.....	215	ATLANTIC motor oil.....	186

ATLAS inner tubes	172
—storage batteries	169
ATOPHAN tablets	119
Auto heaters	162
Automobile inner tubes	171
—radios	268
—storage batteries	168
—tires	170
Automobiles	161
AUTOPOINT pencil	255
AYALON cigarettes	244
AYALON toilet paper	239
AVONDALE corn	22
—peaches	15
—peas	27
—string beans	28
AZURINE sunglasses	243

B-C headache remedy	118
B&N baked beans	21
—corn	22, 24
BPS paint	227
B.S.A. bicycle	231
B.V.D. shorts, men's	136
—undershirts, men's	139
BABBITT'S cleaner	210
BAB-O cleaner	219
BABY DOT soap	98
BABY STUART corn	22
—fruits for salad	13
BABY TOUCH depilatory	70
BACHMANN BROS. sunglasses	243
Baked goods, commercial	9
BAKER, C. H. shoes, men's	149, 148
BAKER'S cocoa	59
Baking powder	9
BALDAXETTE cameras	240
BALDINA cameras	240
BALFOUR gin	284
BALLANTINE'S whiskey	253
BALL-BAND rubbers	141
—sneakers	180
BAND-AID	162, 115
BANLEY PEACHES	14
BANOL moth preventive	223
BANQUET asparagus	18
BANTAM camera	240
BARANID	119
BARBARA GOULD face cream	58
—face powder	79
—hand lotion	72
—lipstick	75
—rouge	86
—shampoo	88
BARBASOL razor blades	80
—shaving cream	91
BARBIDON	110
BARBIZON slips	184
BARBO COMPOUND hair dye	68
BAR KEEPER'S cleaner	215
BARON'S preserves	47, 48, 50
Bathing caps	124
—suits and trunks	125
Batteries, storage	168
BAYER aspirin	165, 167
BAY-ROMA hair dye	68
Bay rum	92
BAZAAR tomatoes	32
BEAN HOLE baked beans	21
Beans, canned baked	20
—string	24
BEAU BRUMMEL undershirts	189
BEAULIEU VINEYARD wines	256
BEAUTYREST mattress	198
BEAUTY soap	98
BEAUTY BUBBLES soap	98
BECK shoes, men's	145
BECK'S tablets	118
BECKLEY bedsprings	189
Bedbugs, insecticides for	220, 223
Bedsprings	188
BEE BEE cameras	238
BEECH-NUT infant foods	48

BEECH-NUT ORALGENE gum	41
BEECH-NUT tomato juice	32
Bee sting, treatment of	259
Beetles, extermination of	223
BELFAIR sanitary napkins	86
BELL-ANS	102, 114
BELLE FLEUR face cream	58
BELLE KNIT stockings	186
BELMONT whiskey	231
BELMORD shirts, men's	136
BEN HUR coffee	41
—tea	89
BEN LOMOND tomatoes	30
BENSORP cocoa	59
Benzodrine inhalant	166
BEST QUALITY paint	227
BETTY LOU face powder	79
BETTY WOODS face powder	79
—sunburn preventive	93
Bicycles	231
BIG BATH soap	95
BIG M corn	22
—tomatoes	31
BILLY B. VAN'S soap	96
BISCEGLIA wines	249, 250, 251
Bisodol	102, 114
BLACKSTONE cigars	246
BLACK & WHITE ointment	113
BLACK & WHITE soap	96
BLACK & WHITE whiskey	233
BLANCO shoe whitener	229
Blankets	125
Bleaches, hair	96
BLEACHODENT tooth bleach	65
BLOOMINGDALE'S soaps	95, 98
BLO-ZERO anti-freeze	161
BLUE BELL preserves	47
—string beans	28
BLUE DELL string beans	28
BLUE DIAMOND razor blades	88
BLUE DIAMOND soaps	96, 98
BLUE-FLO anti-freeze	160
BLUE JEWEL cocoa	39
BLUE LABEL soap	97
BLUE RIBBON blankets	127
BLUE RIBBON toilet paper	230
BLUE SWAN shorts, women's	187
BLUE WHIRL egg beater	176
BLUE & WHITE apricots	12
—baked beans	20
—corn	22
—peaches	15
—peas	27
—string beans	28
BLUE WINNER peaches	15
BOALS-ROLLS laxative	109, 110
BOB WHITE toilet paper	230
BOCABELLI soap	96
BOHACK'S string beans	25
Boilers	194
BOLLACI cigar	248
BON AMI cleaner	210
BONCILLA face cream	89
BOND suits, men's	137
BON KORA obesity cream	116
BONNIE BEST peaches	15
BONNIE DOON stockings	187
BONNIE LADDIE shoes	149
BON TON toilet paper	230
BOOTH'S CRESCENT asparagus	18
BOOTH'S gin	284
BOOTT MILLS towels	151
BOST toothpaste	64
BOSTONIAN shoes, men's	146
BOUNTIFUL peas	27
BOURJOIS face powder	79
BRADFELD'S tonic	123
Bran	88
BRAN-O-LAX Laxative	109, 110
Bread	9
BREWSTER snowsuit	139
BRIARDALE asparagus	18
—peaches	15

272 BRIARDALE—CLEANING

—peas	28
—tomatoes	30
BRILLO silver polish	212
BRIMFULL apricots	12
—corn	22, 23
—peaches	15
—peas	28
BRITO polish	209, 211
Bromides	102
BROWN-SELTZER	102, 114, 118
BROWNTONE hair dye	88
BROWNIE cameras	236, 241
BRUNSWICK sewing machines	204
BRYN MAWR stockings	158
BUCK-HECHT shoes, men's	146
BUCKINGHAM'S hair dye	68
BUCKLEY'S MIXTURE syrup	111
BUG DUST insecticide	223
BUGINE insecticide	222
Bulbs, flashlight	348
—light	183
BULLOCK'S soap	98
Bunions, treatment of	111
BURMA-SHAVE shaving cream	91
BURNETT'S gin	254
Burns, treatment of	104
BURTON-DIXIE CORP. pillows	200
BURTER BROWN shoes	147
Butter	10
BUXA-COLA	53

C D face cream	58
—face powder	79
—hand lotion	72
—lipstick	74
—sanitary napkins	87
—shampoo	87
—shaving cream	71
—shirts, men's	135
—snowsuits	130
—toothbrushes	100, 101
—toothpaste	65
—undershirts, men's	138
C.H.B. tomatoes	29
—tomato juice	32
CADET razor blades	80, 81
CAFE RICO coffee	41
CAL-BIS-MA	102
CALDWELL'S SYRUP laxative	110
CALIFOOD peaches	14
CALIFORNIA DELICACIES	
—preserves	48, 50
CALIFORNIA GIRL tomatoes	31
CALIFORNIA GRAPE	
—PRODUCTS wine	230, 231
CALD dog food	42
CALOX tooth powder	82
CALVERT'S gin	254
—whiskey	252
CALVERT'S soap	99
CAMAY soap	98
CAMBRIDGE SHEEX sneakers	149
CAMEL cigarettes	244
CAMEO soap	98
Cameras	234
CAMPBELL'S baked beans	20
—tomato juice	32
CAMPHO LYPTUS nose drops	107
CANDID MIDGET camera	241
Candy	11
CANFIELD electrolysis method	70
CANNON shorts	143, 144
CANNON blankets	127, 128
CANOE CLUB fruits for salad	13
—string beans	25
Can openers	173
CANTERBURY tea	55
CANTHROX shampoo	88
CANUTE hair dye	88
CAPUDINE tablets	118
CARA NOME face cream	59
CARASYL laxative	100

CARDONA cleaning fluid	298
—shoe whitener	229
Carbon tetrachloride	207
CARDIN tonic	125
CARIOCA lipstick	74
CARL HENRY cigarettes	244, 246
CARMOTE paint	227
CAROLINE condensed milk	51
Carpets	108
CARTER paint	225
CARTER'S fountain pen	236
CARTER'S LIVER PILLS	110
CARTER'S underwear, children's	131
Cascara	108, 109
CASCARETS	110
CASHAY tampons	98
CASHMERE BOUQUET cream	89
—face powder	79
—hand lotion	72
—lipstick	73
—rouge	84
—soap	90
CASTLE CREST peaches	14
CASTLE HAVEN string beans	20
CASTLEROCK shirts, men's	138
CASTORIA	110
Cathartics	106, 108
CAVALIER shoe whitener	229
CAUYGA corn	22, 24
—peas	29
—string beans	26
CEL-O-RAY soap treatment	71
CELTEX toilet paper	229
Centipodes, extermination of	223
CENTURY peaches	15
—peas	28
CENTURY tires	170
CEPHALGINE tablets	118
Cerolis	35
CHALLENGE tea	84
CHALLENGE toilet paper	229
CHAMBERLAIN'S hand lotion	72
CHANDA shorts, women's	188
—slips	184
CHARLES OF RITZ lipstick	75
—rouge	85
CHATHAM blankets	127
—sheets	143
CHEE-KIST cleansing tissue	88
CHERAMY lipstick	74
Cherries, canned	12
CHERRY VALLEY fruit salad	13
—string beans	25
CHESTERFIELD cigarettes	244
CHIEF paint	227
CHIFFON face powder	79
Chiggers	229
Children's shoes	147
—sleeping garments	128
—snowsuits	129
—underwear	130
CHILTON pencil	235
CHI-NAMEL paint	227
CHIVERS' preserves	48, 49, 50
CHI-YO paint	227
CIBALGINE	119
Cigarette holders	246
Cigarettes	244
—denicotinized	246
Cigars	246
Cinchophon	117
CIRCLE 8 string beans	25
CITROCARBONATE	102, 107, 114
Citronella, oil of	221
CLAPP'S infant foods	45
CLASSMATES shoes, children's	147
CLEAN-BE-TWEEN toothbrush	101
Cleaners, drain	213
—dry	207
—paint brush	214
—toilet bowl	215
—vacuum	204
—window	212
Cleaning, dry	248

—supplies, household	209
Cleaning tissue	57
CLEAR-DRIP coffee maker	175
Clocks, electric	178
CLOROX	153, 218
CLOVER FARM asparagus	18
—tomatoes	30
CLUB HOUSE asparagus	18
—peaches	15
Coal	216, 217, 218
COCA-COLA	53, 114
Cockroaches, extermination of	226, 225
Cocoa	38
COCO FOAM soap	95
Coffee	40, 114
Coffee makers	174
COFFET'S hair dye	68
Coke	216, 218
COLD BLAST pillows	200
Cold creams	58
Colds, treatment of	104
COLGATE shaving supplies	90, 91, 92
—soaps	95, 97
—toothpaste	64
—tooth powder	62
COLLEGE INN tomato juice	32
COLONIAL DAMES depilatory	70
—face powder	79
—rouge	85
COLONIAL GRAPE wines	249
COLOURA eyelash dye	68
COLSON FLYER bicycle	233
COLUMBIA bicycle	232
—sunglasses	243
—tricycle	234
COMET rice	57
COMET rust remover	211
COMMANDER paint	227
COMPANION tires	171
COMPRAL	119
Condensed milk	81
CONQUEROR paint	228
CONSTANCE BENNETT powder	79
Constipation	107
CONTAX camera	239
CONTI liquid shave	82
—champoo	86
—soap	97
CONWAY shirts, men's	186
Cooking costs, fuel	217
COOLERATOR ice boxes	291
COOLSPOT electric fan	169
CO-OP apricots	12
—baked beans	21
—cereal	37
—corn	22, 23
—maple syrup	46
—motor oil	165, 167
—peaches	15, 17
—peas	28
—soaps	95, 97
—storage batteries	199
—string beans	25, 26
—tea	54, 55
—toilet paper	229
—tomatoes	30
—tomato juice	33
COOPER razor blades	81
COOPERATIVE tea	54, 55
Corn, canned	21
Corn cereals	37
—flakes	37
Corns, treatment of	112
COSMOS peaches	15
—peas	28
—string beans	26
COSRAY face cream	89
—soap	97
COTTAGE peas	29
COTY face cream	89
—face powder	79
—hand lotion	72
—lipstick	74

—rouge	85
Coughs, treatment of	119
COUNTRY CLUB apricots	11
—asparagus	19
—corn	22, 24
—fruits for salad	13
—peaches	15
—peas	28
—string beans	25
—tomatoes	30
—tomato juice	33
CRAB ORCHARD whiskey	282
CRAIG-MARTIN toothpaste	64
CRAIGWEAR sleeping suit	129
CRAWFORD suits, men's	137
CRAZY CRYSTALS	199
CREAM OF KENTUCKY whiskey	282
CREAM OF WHEAT	36
Creams, cleansing	58
—shaving	90
CREMO cigars	247
CREOMULSION cough syrup	111
CRESO solution	214
CREST JUICER juice extractor	188
CRIBARI wines	256, 251
CRITERION shirts, men's	136
CROSBY SQUARE shoes, men's	146
CROSSE & BLACKWELL preserves	48, 50
—tomato juice	33
CROTZER'S BROMO MINT	114
CROXON PLASTIK depilatory	70
CROYDON electric shaver	80
CUBAN LA PRIMADORA cigars	247
CURRY'S headache powders	118
CUTEX lipstick	74
Cuticle removers	89
CUTICURA soap	89
CUTTY SARK whiskey	283
CYCOL motor oil	168
CYREX metal cleaner	211

D.S.S. toothpaste	64
DAGGETT & RAMSDALL cream	89
—face powder	79
—lipstick	74
—rouge	85
—shampoo	88
—sunburn preventive	93
DAINTIEE toilet paper	229
DAMASCUS sewing machine	203
DAMSCHINSKY'S hair dye	69
Dandruff, treatment of	71
DARK EYES eyelash dye	66
DARMA tea	64
DAROL tablets	118
DART razor blades	81
DARWIN razor blades	81
DAVEGA sneakers	149
DAWSON'S depilatory	70
DAYTON tires	179
DAZEY can openers	173, 174
—juice extractor	189
DEBAUGH electrolysis method	76
DEBORAH MUNROE face lotion	57
DEEPSLEEP mattress	188
DE KAMA rouge	85
DEL-A-TONE depilatory	70
DELICA BROW mascara	86
DELLFORD tomatoes	36
DEL MAIZ corn	22
DEL MONTE apricots	11
—asparagus	18, 19, 29
—corn	22, 23
—fruits for salad	13
—peaches	15
—peas	27
—string beans	25
—tomatoes	30
—tomato juice	34
DELUXE cleaning fluid	208
DE MIRACLE depilatory	70
DENICOTEA filter holder	248

274 DENTABEST—ELMO

DENTABEST toothbrush	101
DENTATUFT toothbrush	191
Dentifrice	90
DENTRAY toothpowder	62
Deodorants	65
Deodorants, household	214
Depilatories	60
DERBAC soap	99
DESOLVO drain cleaner	213
DETROLA radio	289
DEVOE paint	227
DE WANS depilatory	70
DEWAR'S whisky	254
DIAMOND tires	176
DIAMOND A string beans	25
DIAMOND CRYSTAL salt	52
Diatheomy	126
DIC-A-DOO paint cleaner	215
DIENL electric fans	180
DI-LASH eyelash dye	66
DILAXIN laxative	110
DINETTE string beans	26
Diothrophonel	116
DINNER DATE aprons	12
Dinnerware	175
Disinfectants	214
DJER-KISS face powder	79
DOBBS hats, men's	134
DOODGE asparagus	19
—fruits for salad	13
—peaches	14
—peas	28
—preserves	47, 49, 50
—string beans	25
—tomatoes	30
Dog foods	41
DOGGIE DINNER dog food	42
DOG-GON GOOD dog food	42
DOLEITH face cream	59
—powder	79
DOLLINA col. ras	230
DOLLY cameras	240
DOMESTIC sewing machines	203
DOMINO cigarettes	244
DONALDSON'S soap	56
DORALDINA face powder	79
—rouge	85
DORIN rouge	85
DOROTHY GRAY face powder	79
—hand lotion	72
—lipstick	74
—rouge	85
DO SELF sleeping suit	120
DOUBLE DUTY toothbrush	101
DOUBLEQUICK paint	226
Douches	115
DOUGLAS shoes, men's	145, 146
DR. BUTLER'S toothbrush	101
DR. DENTON sleeping suit	120
DR. EDWARDS TABLETS	110
DR. ELLIS lotion	57
DR. FELLOWS' headache powders	110
DR. LYON'S mouthwash	76
—tooth powder	62
DR. MACARTHUR'S toothpaste	63
DR. MARSHALL'S lotion	57
DR. NILES Nervine tablets	110
DR. POSNER'S shoes, men's	146
DR. SACH'S toothpaste	64
DR. SCHOLL'S shoes, men's	147
DR. SCHOLL'S SOLVEX	119
DR. WEST'S toothbrush	101
—toothpaste	64
Drain cleaners	213
DRANO drain cleaner	213
DRENE shampoo	68
Dreons, house	152
DREZMA face cream	59
—face powder	79
—lipstick	74
Dried fruits	49
DRIP-DROP coffee maker	175

DRIPOLATOR coffee maker	175
DROSTE'S soaps	39
DRUMSTICK lipstiek	75
Dry cleaning	248
DUART lipstiek	74
DUBARRY face cream	59
—face powder	79
—lipstiek	74
—rouge	85
DUBLEKEEN razor blades	81
DUBONNET cigars	247
DUNLAP hats, men's	134
DUNLOP inner tubes	172
—tires	171
DUO-DRAFT ice box	201
DU PONT paint	227
DURATEX anti-freeze	160
DUREN stockings	156
DURHAM DUPLEX razors	82
—razor blades	82
DUTCH BOY paint	225
DUTCH BRAND paint	227
DUTCH MASTERS cigars	248
DWIGHT ANCHOR sheets	143
Dyes, eyelash	66
—hair	67

E. A. auto heater	163
E&W shirts, men's	136
E-Z FLOW salt	82
E-Z underwear, children's	131
EAGLE paint	225
EAGLE shirts, men's	136
Eczema, treatment of	118
Earthenware	175
EASTERN WINE wines	250, 251
EAU SUBLIME hair dye	67
EAVENSON'S soap	95
EAZO cleaner	209
ECLIPSE shirts, men's	136
Eczema	117, 121
EDLUND can openers	173, 174
—egg beater	170
EDNA WALLACE HOPPER'S	
—face cream	59
—face powder	79
—shampoo	68
EDRO-LAX laxative	100
EDUCATOR shoes, children's	146, 149
EDWARDS coffee	41
EDWARDS rust remover	211
EDWARDS shoes, children's	146
Egg beaters	170
EGYPTIAN HENNA	68
EGYPTIAN PRETTIEST cigars	244
EG salt	82
ELCO corn	22, 23
EL DORADO blankets	127
ELOREDGE sewing machines	203
Electrical appliances	177
Electricity, costs	210, 219
ELECTROLUX vacuum cleaner	204, 205, 206
Electrolysis	70
ELECTRO-MASSAGE toothbrush	101
ELECTRO-SHEET heating pad	162
ELEKTRA cigars	247
ELGIN bicycle	232
ELGIN electric shaver	90
ELISE WHITE mascara	66
ELIZABETH ARDEN powder	79
—hand lotion	72
—lipstiek	75
—rouge	85
ELIZABETH POST powder	79
—lipstiek	75
—rouge	84
ELKAY tooth bleach	65
ELKAY'S KLENS-ALL	200
ELMO face cream	59
—lipstiek	74

—rouge	85
EL PRODUCTO cigars	247
EMBASSY face cream	59
—face powder	79
—lipstick	73
—rouge	84
EMERALD motor oil	185
EMERSON electric fans	180
—radios	239, 290
EMPEROR OF BROADCLOTH	
shirts, men's	136
ENPORIUM face cream	88
EMPRESS soap	95
EMPSON'S peas	29
EN-AR-CO motor oil	166, 168
ENDERS razor and blades	83
ENDICOTT shoes, children's	149
ENDICOTT-JOHNSON shoes	147
ENDURA permanent wave	77
Enemas	106
ENGINE cleaning fluids	236, 209
—shoe whiteners	229
ENGLISH OVALS cigarettes	245
ENO salts	169
Ephedrine	106
ESKIES sleeping suit	129
ESMOND VELVEDERE blankets	127
ESSLEY shirts, men's	136
ESSO motor oils	166, 167
ESSOLUBE motor oil	166
ESTATE electric range	191
ESTERBROOK fountain pen	258
—jewell	255
ESTERIN tablets	118
ETERNAL TINT hair dye	67
ETHALYL COMPOUND	119
EU MED	119
EUREKA auto heater	163
EUSTON paint	225
EVANS' depilatory	70
Evaporated milk	50
EVENING IN PARIS powder	79
—lipstick	74
EVEREADY sun lamp	121
EVEREADY anti-freeze	160
EVER-READY household oil	224
EVEREADY razor and blades	82
EVERSHARP fountain pen	256
—pencils	255
EVINRUDE bicycle	232
EXAKTA cameras	241
EX-CEL tooth bleach	63
EXIDE storage batteries	169
EX-LAX	107, 110
EXO-NOX moth preventive	229
EXPELLO moth preventive	223
EXQUISITE asparagus	16
—corn	22, 23
—fruits for salad	13
—peaches	14
—string beans	26
—tomatoes	31
—tomato juice	33
EXTANE cleaning fluid	206
EX-TARTAR tooth bleach	65
Eyelash preparations	60
Eyes, care of	111
EY-TEC	66
F & P apricots	11
FAID obesity cure	116
FAIRMONT tomatoes	91
FAIRWAY asparagus	16
—tomatoes	39
FAIRY soap	90
FAIRY tricycle	234
FAME peaches	14
—peas	23
FAMILY BRAND paint	228
Fans, electric	179
FARASTAN	119
FAREL DESTIN sun lotion	57

Farina cereals	36
FASCINATION face powder	79
FASHION PARK suits, men's	137
FASHIONIA permanent wave	77
FATIMA cigarettes	246
FAYRO obesity cure	117
FEATHERDOWN toilet paper	230
FEBCO apricots	12
FEEN-A-MINT laxative	110
Feet, care of	111
FELSOL tablets	118
FEM toilet paper	230
FEMINEX	116
Feminine hygiene	113
FERNDELL asparagus	20
—corn	22, 23
—fruits for salad	13
—string beans	26
Fertilizers	249
FIELDCREST sheets	142
—towels	152
FIFTH AVENUE fountain pen	257
FIGUINOIDS obesity cure	116
Filter holders	248
FI-NA-ST corn	22, 24
—peas	26
FINE ART soap	66
FINELOOM sheets	142
FINER FLAVOR asparagus	16
FIRESTONE inner tubes	172
—motor oil	165
—tires	179
FISK inner tubes	172
—tires	171
FITCH'S hair tonic	71
FIT FOR A KING coffee	41
FIVE BROS. peas	29
FIVE STAR anti-freeze	160
FLAME-GLO lipstick	73
—rouge	84
FLASH FABRIKLEEN	206
Flashlight bulbs and cells	248
FLEADIX insecticide	225
Floas, insecticides for	225
FLEISCHMANN'S gin	254
FLEISCHMANN'S yeast	123
Floas, insecticides for	220, 223
FLIT	221
Floors	196
FLORSHEIM shoes, men's	146
FLOSS-TEX toilet paper	230
FLOTEX anti-freeze	161
Flour	42
FLOWER GARDEN preserves	48, 50
Flypaper	239
Fly sprays	221
FLY-TOX	221
Food mixers, electric	181
Food nostrums (obesity cures)	116
FOOT-SAVER shoes, men's	146
FORCE cereal	39
FORD anti-freeze	161
FORD storage batteries	160
FORESITE tooth powder	62
FORHAN'S toothpaste	63
—tooth powder	62
FORMULA 37 hair tonic	71
FOSTA sunglasses	243
Fountain pens	256
FOUR ROSES whiskey	253
FOUR-SEASON sunglasses	243
FRANCINE face powder	79
FRANKLIN sewing machines	202, 203
FREE WESTINGHOUSE sewing machines	203
FRESHPAK apricots	12
—corn	22
—peas	27
—tomatoes	30
FRICKE'S face cream	59
FRIEND'S baked beans	21
FROSTILLA hand lotion	72
Frozen foods	42
Fruit, dried	43

276 FRUIT—HANDY

FRUIT INDUSTRIES wines	250, 251
FRUIT OF THE LOOM sheets	143
FRUITOLA laxative	100
Fruits for salad, canned	12
Fuels, household	216
FULLER toothbrushes	100, 101
FULLERENE cleaning fluid	206
FULLERTON paint	227
Furnaces	194
Furniture	191
Furs	131

GE heating pad	183
—radio-phonograph	207
—radio	202
—radio tubes	272
GGG suits, men's	137
G&W gin	234
G. WASHINGTON coffee	41
GALLEN KAMP shoes, men's	148
GALLIA sheets	142
GALLIA soaps	96, 97
GAMBLE'S paints	227, 228
GARCIA GRANDE cigars	247
GARDAN tablets	119
Garden methods and materials	249
Gargles	75
GARRARD record player	267
GARRETT wines	240
Gas fuel costs	218, 219
Gas-range appliances	217
Gasoline, as cleaner	209
Gasolines	182
GAUZETS sanitary napkins	86
GAYMODE stockings	167
GEFFEN INDUSTRIES wines	250, 251

GEFFEN'S tea	53
GENEY lipstick	74
GEM-ELECTRIC electric shaver	89
GEM razor blades	91
—razors	82
GENERAL inner tubes	172
—tires	170
GENERAL ELECTRIC clocks	178
—electric fans	180
—food mixer	181
—sunlamp	181
—vacuum cleaner	185
—wafer iron	185
GENERAL MOTORS anti-freeze	181
GENEVA corn	22, 24
GERBER'S infant foods	43
—tomato juice	33
GERBRO corn	22
GERMAN insecticide	222
GERM-AX moth preventive	223
GIBBONEY HOLLIS blankets	127
GIBBS' soap	96
GIBBS string beans	26
GILBEY'S gin	254
GILLETTE electric shaver	90
—razor	92
—razor blades	90
GIMBEL'S sheets	143
—shirts, men's	138
—soaps	96
Gins	254
GIRARD cigars	247
GLAD RAG silver polish	212
GLADYS GLAD face cream	99
—face powder	79
Glauber's salt	102
GLEN CHILLIE whisky	254
GLENMORE'S whisky	251, 252
GLEN OAKS string beans	27
GLIDE electric shaver	90
GLORIETTA tomato juice	33
GLOVER'S MANGE MEDICINE	71
Gloves, leather	132
GLY-CAS laxative	110
GLYCO THYMOLINE	76
GODEFROY eyelash dye	66
Golfer	52

GOLDEN BEAR tea	85
GOLDEN DAWN blankets	127
GOLDEN GATE sheets	143
GOLDEN SHELL motor oil	166, 167
GOLDEN WEDDING whiskey	251
GOLD LABEL paint	227
GOLD LEAF peaches	14
—peas	28
GONDOLA soap	97
Gonorrhea, treatment of	123
GOOD NY-GENE soap	99
GOOD PENN motor oil	165, 167
GOODRICH bathing cap	125
—inner tubes	172
—rubbers	141
—storage batteries	189
—tires	179
GOODYEAR inner tubes	173
—raincoat	140
—storage batteries	189
—tires	170, 171
GOOSESKIN raincoat	140
GORDON'S gin	254
GORHAM CREAM silver polish	211
GOTHAM stockings	159
GRAFLEX cameras	238, 239
GRANADA toilet paper	290
GRAND MACNISH whiskey	253
GRANDPA'S soap	95
GRAND'S shorts, men's	136
GRAND UNION asparagus	19
—corn	24
—fruits for salad	13
—peaches	16
—peas	27
—string beans	25
—tomatoes	30
—tomato juice	33
GRAPEFRUIT cream	95
GRAPE-NUTS cereal	38
GRAYBAN hair dye	68
GREEN GIANT peas	28
GREEN-GLO string beans	26
GREEN RIVER whiskey	253
GREYTEST suits, men's	137
GRIFFIN ALL-WHITE	228, 229
GRIFFIN cleaning fluid	208
GRISDALE fruits for salad	13
—string beans	25
—tea	54
GROVE'S LAXATIVE BROMO QUININE	105, 107, 110, 118
GUARDIAN motor oil	160
GUDE'S PEP-O-MANGAN tonic	123
GUERLAIN lipstick	74
GUEST toothbrush	100
GULFLUBE motor oil	165, 166
GULFPRIDE motor oil	166, 167
GYNALGOS	119

H.M. eyelash grower	66
H-O cereals	37
H.S.G. lipstick	74
HADDON HALL cigars	247
HADEES CHIEF auto heater	164
HAIG & HAIG whiskey	254
Hair bleaches	67
—dyes	67
—removers	69
—tonics	70
—treatments	70
—waving	70
HAIRTONE shampoo	69
HALEY'S M-O laxative	109
Halitosis	73
HAMILTON BEACH food mixers	181
—vacuum cleaner	206
HAMMOND electric clocks	176
HANN'S PERAZONE anti-freeze	161
Handkerchiefs, men's	133
Hand Lotions	71
HAND-O-TONIK hand lotion	72
HANDY ANDY juice extractor	167

HANDYHOT waffle iron	185
HANKEY BANNISTER whiskies	254
HANLEY electric shaver	90
HANOVER shoes, men's	145
HAPPY VALE peas	28
—tomatoes	31
HARDWATER soap	97
HARDWICK shirts, men's	136
HARPER lotion	87
HARPER METHOD hair tonic	71
HARRIET HUBBARD AYER	
hand lotions	72
—lipstick	74
—rouge	85
HARRISON'S shoe whitener	228
HART string beans	25
HARTLEY'S preserves	48
HART SCHAFFNER & MARX	
suits, men's	137
HARVARD cigars	246
HARVESTER cigars	247
HARVEY'S SPECIAL whisky	253
Hats, men's	133
HAVANA RIBBON cigars	247
HAVOLINE motor oil	166, 167
Hay fever, treatment of	117
HAY'S hair tonic	68
HAWTHORNE'S bicycles	232
Headache treatment	118
HEALTH CRYSTALS	100
HEALTH-TONE soap	89
HEARNS soap	97
HEART'S DELIGHT asparagus	20
—fruits for salad	13
—peaches	17
Heat lamps	120
Heaters, auto	162
HEATHER lipstick	73
—rouge	84
Heating costs	210, 210
—equipment, household	194
Heating pads, electric	162
HECK deodorant	78
HECKER'S corsets	86
HEINZ baked beans	20, 21
—infant foods	45
—rice flakes	37
—tomato juice	33
HELENA RUBINSTEIN powder	79
—hand lotion	72
—lipstick	74
—rouge	85
HELMAR cigarettes	245
HEMET peaches	16
HENCKELS can opener	174
HENNA SAN	98
HENRI ROCHEAU soap	96
HERB TEAS	110
HERBERT TAREYTON	248
HERCULES bicycles	231
HERCULES tires	171
HERPICIDE hair tonic	71
HERSHEY'S cocoa	39
HESS hair dye	60
HEXIN	119
HEXYLRESORCINOL S.T.37	76, 103
HEWITT'S soap	95
HIGH STANDARD paint	227
HIGHWAY peaches	15
—peas	28
—string beans	25
—tomatoes	32
HI-LEX window cleaner	215
HILL'S hair dye	68
HILL'S nose drops	107
HILLS BROS. coffee	41
HILLS-DALE asparagus	10
HINDS hand lotion	72
HINTS laxative	110
HIRAM WALKER'S gin	254
—whiskies	252
Hives, treatment of	117
HOLLAND inner tubes	172

HOLLOWAY'S gin	254
HOLLY-PAX tampons	86
HOLLYWOOD eyelash dye	96
HOLLYWOOD shoe whitener	229
HOLLYWOOD stockings	156
HOLLYWOOD EXTRA cream	58
HOLLYWOOD MITT depilatory	70
Home maintenance and building	195
HOME RUN cigarettes	245
HONEYBUCKLE soap	96
HONOR-BILT mattress	188
HOOD-LAX laxative	109
HOOD rubbers	141
—sneakers	180
HOOPER vacuum cleaner	205, 206
Hornet sting, treatment of	220
Healery, men's	136
—women's	184
HOTPOINT electric range	191
HOT-WAVE auto heater	163
HOUBIGANT face powder	79
—lipstick	73
—rouge	85
House dresses	132
House heating	216
House paints	224
Household cleaning supplies	209
—fuels	216
—oils	224
HOUSE OF WESTMORE cream	59
—face powder	79
—lipstick	74
HOWARD suits, men's	137
HOWE'S AIR FILTERED powder	79
HUFFMAN bicycle	232
HUNTER BALTIMORE whiskey	252
HUNT'S asparagus	10
—fruits for salad	13
—peaches	15, 17
—peas	29
—tomato juice	33
HUSH deodorant	78
HUSKIES cereal	36
HUYLER'S cocoa	39
HYLAX laxative	110
HYVIS motor oils	166

IGA apricots	11
IGA apricots	11
—cocoa	40
—corn	22, 24
—fruits for salad	13
—peaches	15, 17
—peas	27
—salt	52
—string beans	25
—tomato juice	33
Ice boxes	200, 201
ICEDAIRE ice box	201
IDEAL cameras	237
IDEAL moth block	223
IKONTA cameras	248
IMPERIAL mattresses	196
INDIAN WALK shoes	148
Indigestion	113
INDUSTRY peas	28
—string beans	27
INECTO hair dye	67
Infant foods	43
INGERSOLL electric shavers	90
INGRAM'S shaving cream	91
Inhalants, for colds	106
INK-D-CATOR fountain pen	257
INKOGRAPH fountain pen	257
INNER-CLEAN laxative	109
Inner tubes	171
Insect and rodent control	219
Insomnia	114
INSTANT CLAIROL hair dye	67
INSTANT DEW deodora	70
INSTANT ODORON deodorant	73
Insulation, house	190
INTEGRITY string beans	20

278 INTEGRITY—LA BONITA

—tomatoes	30
INTERWOVEN socks	137
IDENT toothpastes	63
IONA apricots	12
—cocoa	40
—corn	22
—peaches	16
—peas	29
—string beans	26
—tomatoes	30
—tomato juice	33
IPANA toothpaste	63
IRIS asparagus	19
—fruits for salad	13
—peaches	14
—peas	29
—tomatoes	30
—tomato juice	33
IRONIZED YEAST	123
Irons, electric	183
IRRESISTIBLE face powder	79
—lipstick	73
—rouge	84
IRVINGTON CLUB string beans	25
ISLAND PALM soap	95
ISODINE antiseptic	103
ITALIAN SWISS COLONY wines	250
IVER-JOHNSON bicycle	232
—tricycle	233
IVORY soap	95
JACK SPRAT apr.cots	11
—asparagus	18
—corn	24
—peaches	18
—peas	28
—string beans	26
—tomatoes	30
JAD SALTS	109, 116
Jams	45
JAPANESE OIL hair tonic	71
JAP ROSE soap	98
JAQUET rouge	85
JAQUET SAVON soap	98
JARMAN shoes, men's	146
Jellies	46
JERGENS soap	89
JEWEL paint	227
JOHN BEGG'S whisky	253
JOHNNIE WALKER cigarettes	245
JOHNNIE WALKER whisky	254
JOHNSON'S cleaner	215
—face cream	59
—silver polish	211
—soap	96
JOHNSON & JOHNSON soap	89
Juice extractors	183
JUICE KING juice extractor	186
JUICE-O-MAT juice extractor	186
JUICERETTE juice extractor	186
JUSTRITE cleaner	209
—insecticide	223
K-M electric fan	180
KO NUT	53
K-R-O squill	222
KA-BO shoe whitener	229
KADETTE radio	263
KAFFEE HAG coffee	41
KALI-STEN-ICK shoes, chil-	
—dren's	147
KALMS	119
KARL'S shoes, men's	148
KAUFMAN hats, men's	134
KAWEE cameras	238
KAYSER shorts, women's	158
—slips	154
KEDS sneakers	146, 150
KELLOGG'S cereals	38, 37, 38
KELLY-SPRINGFIELD inner	
—tubes	172
—tires	170

KELP-A-MALT	123
KEMP'S tomato juice	34
KEMPTON shirts, men's	135
KENDALL motor oil	166, 167
KEN-L-RATION dog foods	42
KENMORE sewing machines	263
KEN-RAD radio tubes	269
KENWOOD blankets	127
—snowsuit	130
Kerosene, as anti-freeze	159
—for cleaning	210
—fuel costs	218
—as insecticide	220, 221
KEW-PEE lotion	87
KEY BRAND insecticide	223
KEZ sanitary napkins	88
KILBOURN paint	228
KILTIE toilet paper	229
KING EDWARD cigars	347
KING KELLY preserves	47
KING-KO fruits for salad	13
KIOMIN laxative	109
KIRKMAN'S soap	95
—cleaner	210
KIRK'S soap	95
KISSPROOF lipstick	74
KITCHEN hand lotion	72
KITCHEN AID food mixers	186
KLEENEX cleansing tissues	58
KLEEN-RITE toothbrush	101
KLEINERT'S bathing caps	124, 125
KLENZO shampoo	88
KLENZO TAR soap	99
KNICKERBOCKER soap	99
KNIGHT radio tubes	269
KNIGHT'S tomato juice	54
KNOMARK shoe whitener	228, 229
KNOPF snowsuit	130
KNOX hats, men's	134
KOCH'S tablets	118
KOCKOS peas	28
—string beans	25
KODAK cameras	236 to 241
KOHLER'S ANTIDOTE	118
KOLDPRUF anti-freeze	161
KOLOR-BAK hair dye	66
KOLYNOS toothpaste	63
KONATE moth preventive	222
KOOL cigarettes	245
KOOLMOTOR motor oil	188
KOTEX sanitary napkins	86
KOTOFOM cleaner	215
KRAMER'S toothpaste	63
KRASDALE asparagus	19
—corn	22, 34
—fruits for salad	13
—peaches	18
—preserves	47, 40, 88
—string beans	25
—tea	36
—tomatoes	30
—tomato juice	33
KRECT dog food	42
KREKO fountain pen	267
—pens	266
KREML hair tonic	71
—shampoo	85
KRESS shorts, men's	136
KROME PLATE metal cleaner	211
KRUSCHEN SALTS	109, 110
KUNER'S corn	22, 23
—peas	28
—string beans	26
—tomatoes	31
—tomato juice	33
KURB tablets	118
KURLENE eyelash grower	66
KWIK TAN sunburn preventive	83
KYANIZE paint	227

L&N electric range	191
LA BONITA rouge	84

123	LA CASA soap	98
34	LACO soap	96
136	—shampoo	82
167	LA CORONADA cigars	247
42	LA CREOLE hair dye	66
203	LADD egg beater	178
269	LADY ANN soap	99
127	LADY ESTHER face cream	59
130	—face powder	79
180	—lipstick	74
218	—rouge	84
219	LADY FAIR mattress	197
221	LADY HELEN string beans	28
57	LADY MARLOW face powder	79
223	—rouge	83
68	LADY PEPPERELL sheets	142
228	LAFAYETTE radio	250, 261
229	—radio-phonographs	264, 265
247	—radio tubes	269
47	LANDER'S face powder	79
13	—hand lotion	72
65	—olive oil cream	84
199	Laonin	72
219	LANZETTE depilatory	79
76	LAPACTIC laxative	110
94	LA PALINA cigar	247
72	LARIUSE lash dye	66
198	LARSEN'S infant foods	48
58	LARVEX moth preventive	223
101	LASH-LURE eyelash dye	66
128	LATEX bathing cap	125
68	LATEXEEN bathing cap	125
99	LATHERALL shaving cream	90
99	LATHERLESS shaving cream	91
59	Laundry soap	224
34	LAUREL soap	97
229	LAVITA tooth powder	62
139	LAVORIS mouthwash	76
34	Laxatives	105, 107, 118
19	LEA'S hair dye	66
28	LECHLER'S hair bleach	66
41	LEE hats, men's	134
25	LEE inner tubes	172
16	—tires	170
91	LEE'S metal cleaner	211
68	LE GAY depilatory	70
22	LEHN & FINK sunburn lotion	91
48	LEICA camera	239
68	LENTHERIC lipstick	74
96	LE SAVOY undershirts, men's	139
15	LESSER SLIM FIGURE BATH	117
63	LIBBY'S apricots	11
19	—aspargus	19
34	—baked beans	20, 21
19	—corn	22, 23
18	—fruits for salad	13
90	—peaches	16
23	—peas	29
59	—string beans	25
39	—tomatoes	31
31	—tomato juice	33
42	LIBERTY soap	96
57	Lies, extermination of	223
59	LIFEBUOY shaving cream	63, 69
71	—soap	63, 69
59	LIFE SHAVEN electric shaver	90
29	Light bulbs	183
11	LIGHTFOOT'S soap	96, 99
19	LILY OF THE VALLEY pens	29
29	—tomatoes	30
23	LILY WHITE (see MACY'S)	
26	LIME-COLA	83
11	LINCO motor oil	165, 167
13	LINHOFF cameras	238
11	LIN-TEX toilet paper	236
13	LION HEAD motor oil	166
11	LIPPINGCOTT tomato juice	34
11	Lipsticks	73
11	LIPTON'S tea	54, 56
11	LIQUID ARVON hair tonic	71
11	LIQUID LASH LUX	66
11	Liquors	250
11	LISTERINE antiseptic	76, 106, 113

—shaving cream	91
—toothpaste	63
—tooth powder	62
LOESER'S soap	89
LOG CABIN maple syrup	46
LONGWEAR shirts, men's	135
LORD PEPPERELL shirts	135, 136
LORD SALISBURY cigarettes	245
LORIE OATMEAL soap	99
LORRIS eyelash dye	66
LORRAINE juice extractor	187
Lotions, face	57
—hand	71
—shaving	92
LOTUS sanitary napkins	86
LOUISE ANDRE tissue	58
—rouge	86
LOUISE NORRIS eyelash dye	66
LOVELY LADY face powder	79
LOXOL hair dye	67
LUBRITE motor oil	165
LUCKY STRIKE cigarettes	245
Lumber	196
LUMODRIN	119
LUR-EYE LASH DEVELOPER	67
LUX soap	96
LUXITE shorts, women's	156
—slips	154
LUXOR face cream	59
—face powder	79
LUXURIA face cream	59
—face powder	79
LUXURY eyelash dye	66
LUXUS string beans	25
LYDIA PINKHAM'S	119, 123
LYNCREST cleaning tissues	68
LYSOL	103, 113, 215
LYSOL soap	99

McAN, THOM, shoes, men's	147
McCLAREN tires	170
McCORMICK'S tea	54
McCREERY soap	97
McKENZIE string beans	25
McKESSON'S gin	254
McNAMARA tea	55
MACY'S apricots	12
—aspargus	19
—baked beans	21
—cleaning fluid	206
—cocoa	39
—face cream	58
—hand lotion	72
—infant foods	45
—lipstick	74
—maple syrup	46
—motor oil	165, 166
—peaches	16, 17
—peas	28
—preserves	47, 49, 50
—radio-phonograph	264
—razor blades	89
—shampoo	87
—shorts, men's	156
—soaps	96, 99
—tomatoes	31
—tomato juice	33
—tooth powder	62
—undershirts, men's	139
MADONNA tomato juice	34
MAGIC shaving powder	92
MAGIC silver polish	211
MAGIC AIRE vacuum cleaner	205, 206
MAGNAVOX radio-phonograph	263
MAHLER electrolysis method	78
MAID RITE peaches	16
MAILLARD cocoa	39
MAJESTIC fountain pen	237
MAJESTIC radio	250, 260, 262
—sewing machine	263
MAJESTIC shoe whitener	229

280 MALLORY—MURIEL

MALLORY hats, men's	134
MALTI-GOLA	83
MANATIA cigars	246
MANHATTAN handkerchiefs	133
—shirts, men's	136
—shorts, men's	136
—undershirts, men's	139
MANISTEE salt	82
MANNING'S tea	84
MANSO shorts, men's	139
—undershirts, men's	139
MAPLEINE	45, 46
Maple syrup	45
MARCELLUS string beans	29
MARCHAND'S hair bleach	68
MARCHAND'S shampoo	67
MARGO apricots	11
—asparagus	19
—corn	24
—peaches	16
—peas	28
Margarine	10
MARIE EARLE rouge	85
MARIPOSA tomatoes	32
MARIPOSA WINMOOR blankets	126
MARBORO cigarettes	245
MARLIN razor blades	80, 81
Marmalades	48
MARNOLA obesity cure	116
MARMUN face cream	59
MARO-MEAT dog food	42
MARROW'S shampoo	83
MARTEX towels	151
MARTHA WASHINGTON	
lipstick	74
MARTIN'S paint	227
MARTIN'S V.V.O. whisky	253
MARTINSON'S coffee	41
MARVEL cigarettes	245
MARVELOUS face cream	59
—face powder	79
—lipstick	74
MARY DUNHILL lipstick	73
MARY SCOTT ROWLAND	
cleansing tissues	58
—shampoo	58
MARY T. GOLDMAN'S dyes	68
Mascara	68
MASCARO	68
MASQUE eyelash color	66
MASSO toothbrushes	100
MASTER electric fan	180
MASTERCRAFT heating pad	183
MASTER CRAFT paint	227
MASTERPIECE tomatoes	30
MATILDA HARTMAN'S cream	59
MATTINGLY & MOORE whisky	252
Mattresses	197
MAX FACTOR'S face creams	59
—face powder	79
—lipstick	74
—rouge	88
MAXIMAR cameras	238
MAXINE soap	98
MAYBELLINE eyelash dye	68, 67
MAYCO sheets	143
MAYFAIR tea	84
MAY-FIELD corn	23
MAYFLOWER shorts	142
MAYFLOWER whiskey	252
MAZDA bulbs	248
MAZON soap	97
Medicine cabinet	113
ME DO sleeping suit	128
—underwear	131
ME FIX IT sleeping suit	129
—underwear	131
MELACHRINO cigarettes	245
MELLO-GLO face powder	79
MELLO-WHEAT cereal	56
MELROSE blankets	126
MELTON hats, men's	134
MENNON shaving cream	91

—shaving lotion	92
MENTHOLATUM	167
MERCURY bismyle	233
MERLE NORMAN face	
powder	79
Metal cleaners and polishes	210
METANIC JELLY	104
METHANOL anti-freeze	150
METHAZONE anti-freeze	161
METRO razor blades	82
Mico, extermiation of	222, 224
MICHIGAN tomatoes	30
MIDDISHADE suits, men's	137
MIDLAND CO-OP motor oil	166, 167
MIDOL	119
MIGRO POWDER tablets	118
Milk	80, 81
MILK-I-DENT toothpaste	63
MILKOATO cereal	37
Milk of Magnesia	100
MILK OF MAGNESIA toothpaste	63
MILKORNO cereal	37
MILKWHEATO cereal	86
MILLER bathing cap	125
—tires	171
MILNUT condensed milk	81
MILSHIRE gin	254
MILTON peas	29
MINER'S face powder	79
MINNESOTA sewing machine	203
MIONA soap	96
MIRACLE electric shaver	90
MIRAX window cleaner	212
MISSION asparagus	19, 20
—peaches	16
MISS VANITY slips	164
MISTOL nose drops	167
MOBIL FREEZONE anti-freeze	161
MOBILOL motor oil	166, 167
MOBO window cleaner	212
MODERNE heating pad	183
MODESS sanitary napkins	86
MOHAWK inner tubes	172
—tires	171
MOHAWK sheets	143
—shirts, men's	136
MOLLE shaving cream	91
MONARCH apricots	11
—asparagus	19
—baked beans	20, 21
—corn	22, 24
—fruits for salad	13
—paint	227
—peaches	16
—peas	27
—string beans	25
—tomato juice	83
MONARCH wines	256, 251
MONGOL mechanical pencil	255
MONOGRAM insecticide	223
MONOGRAM motor oil	166, 167
MONTE CARLO soap	97
MOREEDGE razor blades	80
MORTON'S salt	82
Mosquitoes, insecticides	221, 223
MOTHEX	223
MOTHOLA	223
Moth preventives	221, 223
MOTH-PRUF cabinets	223
MOTH TABS	223
MOTH WOOL	223
MOTODENT toothbrush	161
Motor oils	184
Mouthwashes	75
MOVIE WAVE permanent wave	77
MRS. POTTER'S hair dye	68
MT. VERNON whisky	251
MUFFI cleaner	209
MULSIFIED COCOANUT OIL	98
MULSITAN sunburn preventive	98
MUNSGING WEAR shorts	138
MURAD cigarettes	245
MURIEL cigars	247

MUSTEROLE—PENCILS 281

92	MUSTEROLE	187
107	MYCO razor blades	80
233	MYLIN	119
	MYSTIC hand lotion	72
79	N	
210	NACELLA cleansing tissues ...	54
194	NACTO cleaning fluid	204
150	Nail preparations	76
161	NAMM'S soap	97
82	NANCY LEE oocoa	40
2, 224	NANCY LEE lotion	57
50	NASSOUR'S soap	96
137	NATIONAL oocoa	36
167	—corn	23
119	NATIONAL sewing machines ...	294
118	NATIONAL UNION radio tubes	260
50, 51	NATIONAL'S EAGLE whiskey..	253
63	NATURAL BLOOM clear	247
37	NATURE'S REMEDY (N R) 100.	110
100	NAZARETH sleeping suit	128
63	NECTAR tea	54, 55, 56
37	NEEDLES' shirts, men's	136
38	NEET depilatory	70
125	NEHI	53
171	NEISNER'S soap	97
61	NEMO soap	97, 99
254	NEONAL COMPOUND	119
29	NEOS-HENNE hair dye	66
79	NEOSILVOL	106
293	NEOSYNEPHRIN	105
95	NETTAX camera	230
90	NETTLETON shoes	146
212	NEURODYNE	119
0, 20	NEW DAY peaches	16
16	NEW HOME sewing machines ..	203
154	NEWMARK tomatoes	29
167	NEW MIX toothpaste	94
161	NEW TEXACO motor oil	165, 167
167	NEW WILLARD sewing	
212	machines	204
163	NEW YORKER suits, men's	137
66	NIAGARA towels	151
173	NIBLETS corn	24
171	NOD	119
143	NOIL sunburn preventive	93
130	NO-MOTH	223
91	NON-SPI deodorant	78
11	NOROL-AGAR laxative	110
19	NORTH STAR blankets	127
0, 21	NO-RUB shoe whitener	229
2, 34	NORWAY anti-freeze	161
15	Nose drops and sprays	105
227	NOURISHINE hair dye	68
18	NU-DEAL beans, string	25
27	NUMBER 27 cigar	247
23	NUNN-BUSH shoes	146
33	NURAN tablets	118
251	NUTLAX laxatives	110
295	NYE'S household oil	224
223	O	
167	O.H. tooth powder	63
97	OAKITE cleaner	209
60	Obesity cures	116
62	OCGY-CRYSTINE	109
223	OCTAGON soap	95
223	O'DELL'S hair dye	66
223	ODORA	223
223	ODORONO deodorants	78
223	OFFICIAL peas	29
223	OH-BOY beans, string	25
101	—fruits for salad	13
164	—peaches	16
75	—tomato juice	33
77	Oil, fuel	216, 219
68	Oil, motor	164
251	Oils for household use	224
200	OLD CROW whiskey	251
95	OLD DRUM whiskey	253
158	OLD DUTCH CLEANSER	210
245	OLD FARM whiskey	252
347	OLD GOLD cigarettes	245
	OLD GRAND-DAD whiskey	251

283	OLD METHUSALEM whiskey ..	283
254	OLD MR. BOSTON gin	254
251	OLD OVERHOLT whiskey	251
252	OLD QUAKER whiskey	252
251	OLD SCHENLEY whiskey	251
251	OLD TAYLOR whiskey	251
96	OLIV-IL0 soap	96
97	OLIV-PALM soap	97
201	OLYMPIC ice boxes	201
229	OMEGA shoe whitener	229
150	ONEIDA smokers	150
257	ONWARD fountain pen	257
166, 168	OPALINE motor oil	166, 168
119	OPTALIDON PERALGA	119
243	OPTILENE sunglasses	243
247	OPTIMO cigars	247
247	ORLANDO cigars	247
76	OROSAN mouthwash	76
76	ORYGENE mouthwash	76
82	OUR FAMILY salt	82
40	OUR MOTHER'S oocoa	40
65	OUR OWN tea	65
73	OUTDOOR GIRL lipstick	73
79	—powder	79
84	—rouge	84
114	OVALTINE	114
172	OVERMAN inner tubes	172
153	OXOL	153

110	P	
18	P & G laxative	110
23	P & G asparagus	18
13	—corn	23
17	—fruits for salad	13
25	—peaches	14, 17
33	—string beans	25
229	—tomato juice	33
34	PACIFIC toilet paper	229
34	PACIFIC GOLD tomato juice ..	34
89	PACKARD electric shavers	89
88	PACKER'S shampoo	88
90	—soap	90
117	Pain, treatment of	117
224	Paint, house	224
213	Paint removers	213
214	Paint-brush cleaners	214
96, 99	PAISLAY soap	96, 99
128	Pajamas, children's	128
16	PALACE peaches	16
32	—tomatoes	32
245	PALL MALL cigarettes	245
210	PAL-LO cleaner	210
95	PALMACO soap	95
20	PALMDALE asparagus	20
198	PALMER mattress	198
247	PALMITAS cigars	247
87	PALMOLIVE shampoo	87
90, 91	—shaving cream	90, 91
82	—shaving lotion	82
91	—shaving soap	91
96	—soap	96
162	PAPSOMAX	162
67	PARAGON hair dye	67
254	PARCO fountain pens	254
42	PARD dog food	42
133	PARIS KERCHIEFS	133
73	PARK & TILFORD lipstick	73
252, 253	PARK & TILFORD whiskey	252, 253
256	PARKER fountain pens	256
68	PARKER'S hair dye	68
137	PARKLEIGH suits, men's	137
89	PASTERIZED face cream	89
225	PATTERSON'S CEDAREX tubes ..	225
245	PAUL JONES cigarettes	245
283	PAUL JONES whiskey	283
66	PAUL'S, B., HENNA hair dye ..	66
204	PAVEWAY sewing machines ...	204
14	Peaches, canned	14
18	Pears, canned	18
27	Peas, canned	27
64	PEBECO toothpaste	64
61	—tooth powder	61
140	PEDIFORME shoes	140
234	Pencils, mechanical	234

280 MALLORY—MURIEL

MALLORY hats, men's	134	—shaving lotion	92
MALTI-COLA	83	MENTHOLATUM	107
MANATIA cigars	246	MERCURY bicycle	233
MANHATTAN handkerchiefs	133	MERLE NORMAN face	
—shirts, men's	136	powder	79
—shorts, men's	136	Metal cleaners and polishes	216
—undershirts, men's	136	METANIC JELLY	104
MANISTEE salt	82	METHANOL anti-freeze	156
MANNING'S tea	84	METHAZONE anti-freeze	161
MANSO shorts, men's	136	METRO razor blades	82
—undershirts, men's	136	Nice, extermination of	222, 224
MAPLEINE	45, 46	MICHIGAN tomatoes	80
Maple syrup	45	MIDSHADE suits, men's	187
MARCELLUS string beans	26	MIDLAND CO-OP motor oil	166, 167
MARCHAND'S hair bleach	68	MIDOL	119
MARCHAND'S shampoo	67	MIGRO POWDER tablets	118
MARCO apricots	11	Milk	50, 51
—asparagus	19	MILK-I-DENT toothpaste	63
—corn	24	MILKOATO cereal	87
—peaches	16	Milk of Magnesia	169
—peas	28	MILK OF MAGNESIA toothpaste	63
Margarine	10	MILKORNO cereal	87
MAHIE EARLE rouge	85	MILKWHEATO cereal	86
MARIPOSA tomatoes	32	MILLER bathing cap	125
MARIPOSA WINMOOR blankets	128	—tires	171
MARLBORO cigarettes	245	MILNUT condensed milk	51
MARLIN razor blades	80, 81	MILSHIRE gin	234
Marmalades	46	MILTON peas	29
MARMOLA obesity cure	116	MINER'S face powder	79
MARMUN face cream	89	MINNESOTA sewing machine	293
MARO-MEAT dog food	42	MIONA soap	96
MARROW'S shampoo	68	MIRACLE electric shaver	90
MARTEX towels	181	MIRAX window cleaner	312
MARTHA WASHINGTON		MISSION asparagus	19, 26
lipstick	74	—peaches	16
MARTIN'S paint	227	MISS VANITY slips	154
MARTIN'S V.V.O. whisky	233	MISTOL nose drops	167
MARTINSON'S coffee	41	MOBIL FREEZONE anti-freeze	161
MARVEL cigarettes	245	MOBILLOIL motor oil	166, 167
MARVELOUS face cream	59	MOBO window cleaner	212
—face powder	79	MODERNE heating pad	183
—lipstick	74	MODESS sanitary napkins	86
MARY DUNHILL lipstick	75	MOHAWK inner tube	172
MARY SCOTT ROWLAND		—tires	171
cleansing tissues	58	MOHAWK sheets	145
—shampoo	58	—shirts, men's	136
MARY T. GOLDMAN'S dyes	65	MOLLE shaving cream	91
Mascara	66	MONARCH apricots	11
MASCARO	66	—asparagus	19
MASQUE eyelash color	66	—baked beans	20, 21
MASSO toothbrushes	100	—corn	22, 24
MASTER electric fan	180	—fruits far salad	13
MASTERCRAFT heating pad	183	—paint	227
MASTER CRAFT paint	227	—peaches	16
MASTERPIECE tomatoes	30	—peas	27
MATILDA HARTMAN'S cream	59	—string beans	25
MATTINGLY & MOORE whiskey	252	—tomato juice	35
Mattresses	197	MONARCH wines	230, 251
MAX FACTOR'S face creams	59	MONGOL mechanical pencil	255
—face powder	79	MONOGRAM insecticide	223
—lipstick	74	MONOGRAM motor oil	166, 167
—rouge	85	MONTE CARLO soap	97
MAXIMAR cameras	238	MOREEDGE razor blades	90
MAXINE soap	98	MORTON'S salt	82
MAYBELLINE eyelash dye	68, 67	Mosquitoes, insecticides	221, 223
MAYCO sheets	143	MOTHEX	223
MAYFAIR tea	84	MOTHOLA	223
MAY-FIELD corn	23	Moth preventives	221, 223
MAYFLOWER sheets	142	MOTH-PRUF cabinets	223
MAYFLOWER whiskey	252	MOTH TABS	223
MAZDA bulbs	248	MOTH WOOL	223
MAZON soap	97	MOTODENT toothbrush	191
Medicine cabinet	113	Motor oils	164
ME DO sleeping suit	128	Mouthwashes	75
—underwear	131	MOVIE WAVE permanent wave	77
ME FIX IT sleeping suit	129	MRS. POTTER'S hair dye	68
—underwear	131	MT. VERNON whiskey	251
MELACHRINO cigarettes	245	MUFTI cleaner	296
MELLO-GLO face powder	79	MULSIFIED COCOANUT OIL	88
MELLO-WHEAT cereal	36	MULSITAN sunburn preventive	89
MELROSE blankets	128	MUNSONG WEAR shorts	158
MELTON hats, men's	134	MURAD cigarettes	245
MENNON shaving cream	91	MURIEL cigars	247

MUSTEROLE—PENCILS 281

MUSTEROLE	137
MYCO razor blades	80
MYLIN	119
MYSTIC hand lotion	72

N	
NACELLA cleansing tissue	58
NACTO cleaning fluid	208
Nail preparations	76
NAMM'S soap	97
NANCY LEE cocoa	40
NANCY LEE lotion	57
NASSOUR'S soap	96
NATIONAL cocoa	39
—corn	22
NATIONAL sewing machines	204
NATIONAL UNION radio tubes	200
NATIONAL'S EAGLE whiskey	253
NATURAL BLOOD cigar	247
NATURE'S REMEDY (N R) 109, 110	110
NAZARETH sleeping suit	128
NECTAR tea	34, 55, 56
NEEDLES' shirts, men's	136
NEET deslatory	70
NEHI	53
NEISNER'S soap	97
NEMO soap	97, 99
NEONAL COMPOUND	119
NEOS-HENNE hair dye	68
NEOSILVOL	106
NEOSYNEPHRIN	105
NETTAX camera	230
NETTLETON shoes	148
NEURODYNE	119
NEW DAY peaches	18
NEW HOME sewing machines	203
NEWMARK tomatoes	29
NEW MIX toothpaste	64
NEW TEXACO motor oil	165, 167
NEW WILLARD sewing machines	204
NEW YORKER suits, men's	137
NIAGARA towels	151
NIBLETS corn	24
NOD	119
NOIL sunburn preventive	93
NO-MOTH	223
NON-SPI deodorant	78
NOROL-AGAR laxative	118
NORTH STAR blankets	127
NO-RUB shoe whitener	229
NORWAY anti-freeze	161
Nose drops and sprays	105
NOURISHINE hair dye	68
NU-DEAL beans, string	25
NUMBER 27 cigar	247
NUNN-BUSH shoes	148
NURAN tablets	118
NUTLAX laxatives	110
NYE'S household oil	224

O	
O.H. tooth powder	63
OAKITE cleaner	209
Obesity cures	116
OCY-CRYSTINE	100
OCTAGON soap	95
O'DELL'S hair dye	68
ODORA	223
ODORONO deodorants	75
OFFICIAL pens	29
OH-BOY beans, string	25
—fruits for salad	13
—peaches	16
—tomato juice	33
OH, fuel	216, 219
Oil, motor	164
Oils for household use	224
OLD CROW whiskey	251
OLD DRUM whiskey	253
OLD DUTCH CLEANSER	216
OLD FARM whiskey	252
OLD GOLD cigarettes	245
OLD GRAND-DAD whiskey	251

OLD METHUSALEM whiskey	253
OLD MR. BOSTON gin	254
OLD OVERHOLT whiskey	251
OLD QUAKER whiskey	252
OLD SCHENLEY whiskey	251
OLD TAYLOR whiskey	251
OLIV-IL0 soap	96
OLIV-PALM soap	97
OLYMPIC ice boxes	291
OMEGA shoe whitener	229
ONEIDA sneakers	150
ONWARD fountain pen	257
OPALINE motor oil	166, 168
OPTALIDON PERALGA	119
OPTILENE sunglasses	243
OPTIMO cigars	247
ORLANDO cigars	247
ORSON mouthwash	76
ORYGENE mouthwash	76
OUR FAMILY salt	82
OUR MOTHER'S cocoa	40
OUR OWN tea	55
OUTDOOR GIRL lipstick	73
—powder	79
—rugs	84
OVALTINE	114
OVERMAN inner tubes	172
OXOL	153

P	
P. D. Q. laxative	110
P & G asparagus	18
—corn	23
—fruits for salad	13
—peaches	14, 17
—string beans	25
—tomato juice	33
PACIFIC toilet paper	229
PACIFIC GOLD tomato juice	34
PACKARD electric shavers	89
PACKER'S shampoo	88
—soap	90
Pain, treatment of	117
Paint, house	224
Paint removers	213
Paint-brush cleaners	214
PAISLAY soap	96, 99
Pajamas, children's	128
PALACE peaches	16
—tomatoes	32
PALL MALL cigarettes	245
PAL-LO cleaner	210
PALMACO soap	95
PALMDALE asparagus	20
PALMER mattress	198
PALMITAS cigars	247
PALMOLIVE shampoo	87
—shaving cream	90, 91
—shaving lotion	92
—shaving soap	91
—soap	96
PAPSONAX	102
PARAGON hair dye	67
PARCO fountain pens	250
PARD dog food	42
PARIS KERCHIEFS	134
PARK & TILFORD lipstick	73
PARK & TILFORD whiskey	252, 253
PARKER fountain pens	250
PARKER'S hair dye	66
PARKLEIGH suits, men's	137
PASTEURIZED face cream	89
PATTERSON'S CEDAREX tubes	225
PAUL JONES cigarettes	245
PAUL JONES whiskey	253
PAUL'S, B., HENNA hair dye	80
PAVEWAY sewing machines	204
Peaches, canned	14
Pears, canned	18
Pesa, canned	27
PEBECO toothpaste	64
—tooth powder	61
PEDIFORME shoes	148
Penets, mechanical	254

282 PENCO—PROCTOR

PENCO fountain pen	236
PENCO rubbers	141
—sheets	142
—sneakers	140
PENDELETON blankets	127
PENETRO	107
PENMAID sanitary napkins	98
PENN CO-OP motor oil	165, 167
PENN-CRAFT hats, men's	134
PENNEY'S hats, men's	134
—rubbers	141
—sheets	142
—shorts, men's	136
—slips	134
—sneakers	140
—snowsuits	130
—soap	86
—socks, men's	137
—undershirts, men's	139
PENN-RAD motor oil	165, 166
PENNZOIL motor oil	166, 167
Pens, fountain	256
PEOPLE'S soap	96, 97, 98, 99
PEP cereal	87
PEPPERELL blankets	120
—sheets	143, 144
PEP-R-MINT toothpaste	64
PEPSI-COLA	83
PEPSODENT antiseptic	76, 113
—mouthwash	105
—toothpaste	63
—tooth powder	62
PEPTANS	162
PEQUOT sheets	143
PERALGA	119
Percolators	174
PERFECT soap	93, 99
PERFECT-TEST shirts, men's	136
PERFECTION auto heater	164
PERFECTION tea	55
PERFEX camera	241
PERMA-COLEUR eyelash dye	66
Permanent waves	76
PERMATAX windshield cleaner	212
Perapiration suppressors	77
PETUSSIN cough syrup	111
PERUNA tonic	123
PERZECHELLA soap	98
PETER DAWSON whiskey	253
PETER-PAN tomato juice	33
PETROLAGAR laxative	100, 110
PETRO-SYLLIUM	100
PETTIJOHN'S cereals	36
PHANTOM BROW eyelash dye	66
PHENAMIDOL	119
PHEN-AMY-CAPS	119
PHENO BARBIDON	119
PHENOBARBINE	119
PHENOBILIN laxative	110
PHENOLAX laxative	110
PHILCO radios	260, 261, 262
—radio-phonograph	265
—radio tubes	269
PHILHARMONIC radio-phonograph	266
PHILIPA toilet paper	239
PHILIP MORRIS cigarettes	245
PHILLIES cigar	247
PHILLIPS beans, baked	21
—beans, string	27
—cocoa	39
—corn	22
—peas	29
—tomatoes	31
PHILLIPS face cream	59
—tablets	114
—toothpaste	64
Photographic equipment	234
Physical therapy	120
PHYSICIANS' AND SURGEONS' soap	98
PIEDMONT cigarettes	248
PIED PIPER shoes	147

PIERCE bicycle	231
—tricycle	234
Pillows	199
PILLSBURY'S cereals	36, 38
PILOT camera	241
PINAUD shampoo	83
PINE CONE string beans	27
PINE-OIL disinfectants	215
PINEOLEUM nose drops	107
PIONEER paints	225
PIONEER tricycle	234
PIPPIN cigar	247
PISOS cough syrup	111
PLASCO paint	228
PLAY-WOOLIES snowsuit	130
PLAYERS cigarettes	245
PLENAX cameras	237
PLOUGH'S soap	89
Plumbing	199
PLUTO WATER	109
PLYMOUTH bathing cap	124
PO GO rouge	84
Poison ivy, treatment of	122
POLA-COLA	83
POLANER'S, M., preserves	47, 49, 50
POLAR CUB electric fan	180
POLARIS DENTAL POUltICE	119
POLAROID sunglasses	243
Polishes, metal	219
POLLYANNA shoes	149
POMME d'AMOUR tomato juice	34
POMPEIAN face cream	89
—face powder	79
—lipstick	75
—rouge	85
POND'S cleansing tissues	88
—cream	59
—lotion	67
—powder	79
POPPY sheets	142
PORCELIEN coffee maker	175
POST'S BRAN FLAKES cereal	37
POST TOASTIES cereal	37
POUDRE ANTOINE face powder	79
Powder, face	79
—talcum	83
—tooth	61
POWERS soap	95, 98
PRATTLOW asparagus	19, 20
—peaches	17
Precipitated chalk	61
PREMIER apricots	12
—asparagus	19, 20
—baked beans	20
—corn	23
—fruits for salad	13
—peaches	16
—peas	28
—preserves	48
—string beans	29
—tomatoes	30
—tomato juice	33
PREMIER cleaner	206
PREMIER vacuum cleaner	205
PREMIUM motor oil	165
Preserves	48
PRETONE cleaner	215
PRIDE strawberry jams	49
PRIDE OF FARM tomatoes	31
PRIDE OF KILLARNEY tea	54
PRIM cleaner	215
PRIMROSE HOUSE lipstick	73
PRINCE MATCHABELLI	
—lipstick	74
—powder	79
—rouge	85
PRINCESS PAT cream	59
—lipstick	73
—powder	79
—rouge	84
PRIZE motor oil	168
PROBAK JH. razor blades	81
PROCTOR waffle iron	185

PROGRESS vacuum cleaner	305, 306
PROGRESSIVE CLAIREL eye	66
PRO-KER hair tonic	74
PROPHENAL COMPOUND	119
PROPHYLACTIC toothbrush	101
PRO-TEK-TIV shoes	148
PROTEX sunglasses	243
PRUNIDIA tonic	123
PRUNIDS laxative	110
Psyllium Seed laxative	106
PUFFED RICE cereal	37
PUFFED WHEAT cereal	38
PUREX chalk	61
PURITAN preserves	47, 48
PURSAN LAXATIVE PILLS	110
PYCOPE toothbrush	101
Pyorrhea	60
PYRALART sunglasses	243
PYRAMIDON	119
PYRAMINAL	110
Pyrethrum dusts and sprays	221
PYROZIDE tooth powder	62

Q-BAN hair dye	68
QUAKER cereals	36, 37
QUAKER MAID cereals	39
QUAKER STATE motor oils	184, 187
QUALI-REST mattress	197
QUALITY paint	227
QUICK QUAKER cereals	37
QUICKIES underwear	131
QUINLAN sunburn lotion	93
QUINTUPLET can opener	174

R.C. asparagus	19
—fruits for salad	13
—peas	27
—tomato juice	33
RCA phonograph needles	263
—radio-phonographs	265
—radios	261, 262
—record player	267
RPM motor oil	165
Radio antennas	268
Radios	258
—automobile	268
—phonograph combinations	258
—tubes	269
RADIOTRON radio tubes	209
RAHNEE depilatory	70
Raincoats	140
RALEIGH bicycles	231
—cigarettes	245
RALSTON cereals	36
RAMESES cigarettes	245
RAND electric shaver	89
RAND'S OWN tea	56
Ranges, electric	189
RANSOM & RANDOLPH'S	
tooth bleach	65
RAP-I-DOL hair dye	67
Rats, extermination of	222, 224
RAY-BAN sunglasses	243
RAYMASTER raincoat	140
RAYTHEON radio tubes	209
Razor blades	70
Razors, electric	89
—safety	81
Record players	267, 268
RECOTON phonograph needles	263
RED A coffee	41
RED CAP razor blades	81
RED CIRCLE coffee	41
RED CLOVER toilet paper	230
RED CROSS toilet paper	229
RED HEART dog foods	42
RED LABEL apricots	11
—peas	28
RED ROBIN toilet paper	229
RED ROCK-COLA	83
RED STAR coffee	41

RED & WHITE apricots	11
—asparagus	18
—beans, baked	21
—beans, string	25
—corn	22, 23
—fruits for salad	13
—peaches	16
—peas	28
—salt	82
—tomatoes	30
—tomato juice	33
RE-DUCE-OIDS obesity cure	116
Reducing drugs	116
REEVES' BEST beans, string	25
—corn	22, 23
—peaches	16
—tomatoes	30
REEVES' rice	37
—tea	55, 66
REFLECTA camera	240
REFLEX KORELLE	241
Refrigerators	200
REGAL inner tubes	171, 172
—shoes	145
—toilet paper	230
REGENT shoots	144
REGS laxative	110
REIS JIMPANT shorts, men's	138
REIS JIMSHIRT undershirts	139
REJUVIA lipstick	75
RELIABLE beans, string	26
—peas	28
REM cough syrup	111
REMINGTON electric shaver	89
RENGO FRUIT obesity cure	116
RENTON'S HYDROCINE	119
RETINA camera	239
REVERE inner tubes	172
REXAIR vacuum cleaner	205, 206
REXALL nose spray	107
—soap	99
REXLIN toilet paper	230
RHYTHM slips	184
RIALTO asparagus	19
RIALTO razor blades	81
RICE KRISPIES	57
RICHIEU apricots	12
—asparagus	19
—beans, string	25
—cocoa	38
—corn	22, 23
—fruits for salad	13
—peaches	16, 17
—peas	28
—tomatoes	30
—tomato juice	33
RICHFIELD motor oils	180, 187
RICHMAN suits, men's	137
RICORD cigar	247
RIDGWAY'S tea	54
RIGHT & READY salt	82
RING-FREE motor oils	168, 169
RIO GRANDE cleaning fluid	208
RITE-RITE pencil	255
RITTER baked beans	21
—tomato juice	34
RIVAL dog food	42
RIVAL juice extractor	186
RIVERSIDE tires	171
Roads, extermination of	220
ROADMASTER bicycle	232
ROBBINS & MYERS fans	179, 180
ROBERT BURNS cigar	247
ROBINSON'S shoots	143
ROCK DELL apricots	12
—asparagus	19
—fruits for salad	14
—peas	27
—string beans	25
ROCKFORD sewing machines	204
Redents, control of	219
ROLLEICORD camera	241
ROLLEIFLEX camera	241

284 ROLLFAST—SHAVERS

ROLLFAST bicycles	232, 234
ROLLS razor	83
ROMA wines	250, 251
ROMAR shirts, men's	136
ROME bedsprings	180
Roofing	186
ROOSEVELT asparagus	20
ROSDEX laxative	109
ROSE-DALE apricots	12
—corn	22, 24
—peaches	17
—tomatoes	30
ROTHSCHILD cigar	247
Rouge	83
ROUX eyelash dye	86
ROYAL hair dye	68
ROYAL BLUE toothpaste	64
ROYAL CROWN-COLA	53
ROYAL ENFIELD bicycle	231
ROYAL JEWEL coffee	41
ROYAL SCARLET apricots	12
—asparagus	18, 20
—beans, baked	21
—peas	40
—coffee	41
—corn	22, 23
—fruits for salad	14
—peaches	17
—peas	28
—tea	55
—tomatoes	30
—tomato juice	34
Rubber footwear	141
RUBIZAN mouthwash	76
RUB-LESS metal cleaner	210
Rugs	108
RUNKELS cocoa	40
RUSTIC tomato juice	34
RUTH ROGERS face cream	59
—face powder	79
RY-KRISP	116

S. Y. 37 toothpaste	63
S&W apricots	12
—asparagus	19
—coffee	41
—corn	23, 24
—fruits for salad	13
—peaches	16
—preserve	47, 48, 50
—string beans	25
—tea	55
—tomatoes	30
—tomato juice	34
SWP paint	227
SACRAMENTO asparagus	18
—fruits for salad	13
—peaches	14
—tomatoes	30
SAFE-T heating pad	183
SAFETY-HEET heating pad	182
SAKS stockings	156
SALADA tea	54
SAL HEPATICA	102, 107, 109, 114
SALLY TOGS snowsuit	139
Salmon, canned	35
Salol ointment	93
SALON cream	59
Salt	82
—as anti-freeze	159, 161
—as dentifrice	61
SAMSON bicycle	233
SAMSON electric fan	180
—heating pad	182
SANDRA permanent wave	77
SANDY'S dog food	42
SANETTE cleansing tissues	58
SANI-CLOR	215
SANI-FLUSH cleaner	213
SANIKLEEN soap	99
SANITARIUM infant foods	45
Sanitary napkins	86
SANITUBE prophylactic	123

SANKA coffee	41
SANO cigarettes	245, 246
SANDVAN deodorant	216
SANTAVALLEY peas	27
—string beans	25
SANTOS ROYALE coffee	41
SAPOLIO soap	99
SARACEN tomatoes	30
SARAZA laxative	109
SAVABRUSH brush cleaner	214
SAVAGE lipstick	78
SAVOGRAN cleaner	215
SAVON FRANCINE soap	96
SAVOY fruits for salad	14
SAYMAN'S soap	96
SCHENLEY gin	254
—whiskey	252, 253
SCHICK electric shaver	89
—razor	85
SCHOBLE hats, men's	134
SCHRAFFT'S preserves	47, 48
SCHWINN, ARNOLD bicycle	232
SCIENTIFIC fly spray	223
SCIENTIFIC toothbrush	191
SCOTT CO. corn	22
—tomatoes	30
—tomato juice	34
SCOTTISSE toilet paper	229
SCOTT radio-phonograph	266
SCRIPTO pencil	255
SEAGRAM'S gin	254
—whiskey	252
SEALPACKERCHIEF	
—handkerchiefs	133
SEAL-TITE bathing cap	124, 125
SEAMPRUFE slips	154
SEARS' anti-freeze	161
—auto heater	163
—blankets	127, 128
—can openers	174
—cups heater	176
—electric range	190
—electric shaver	90
—household oil	224
—inner tubes	171, 172
—motor oils	165, 167
—paints	227, 228
—radios	259, 260, 261
—radio-phonograph	264
—radio tubes	269
—razor blades	80, 81
—shaving cream	90
—shaving soap	91
—sheets	142
—shirts, men's	135, 136
—shoes	148
—sneakers	156
—snowsuits	129, 130
—soap	95, 96, 97
—tires	171
—toothbrush	100
—toothpaste	64
—underwear, children's	131
SEDA toilet paper	229
Seeds, vegetable	244
SEELQUIT	119
SEIBERLING bathing cap	125
—inner tubes	172
SEIDENBERG, S., cigar	247
Selditz powders	109
SELBACK bicycle	231
SEMINOLE toilet paper	229
SETH THOMAS electric clocks	179
SERUTAN laxative	109
SERV-U-RITE string beans	27
SEVENTEEN lipstick	75
7-28-4 cigar	247
Sewing machines	202
Shampoos	66
SHAPELEY'S PRESCRIPTION	123
SHASTA tea	56
SHAVEMASTER	89
Shavers, electric	89

Shaving creams	90
—lotions	90
—soaps	90
SNEAffer fountain pens	256
—penoil	255
Sheets	141
SHEFFIELD string beans	26
SHEFFIELD'S tea	54
SHELBY bicycle	232
SHELL-KLEANZIT	208
SHELL-PENN motor oils	166, 167
SHERAY toothpaste	64
SHERWIN-WILLIAMS paints	228
SHEWAN-JONES wines	248, 250, 251
SHINOLA shoe whiteners	228, 229
SHIRT-EEZ undershirts, men's	139
Shirts, men's	134
Shoe whiteners	228
Shoes	144
SHORT-EEZ shorts, men's	138
Shorts, men's	137
—women's	157
SHREDDED WHEAT	98
SHULTON GARDENIA soap	97
SHU-MILK shoe whitener	229
SHURFINE peaches	14
—peas	38
SHUR KLENZ CREME	212
SHUR-SHOT cameras	236
SHU-SNO shoe whitener	228
SIGNAL cleaning fluid	208
SIGNAL electric fan	180
SILCO metal cleaner	211
SILEX, JR., coffee maker	178
SILICA PRODUCTS CO.	
—toothpaste	64
SILPH chewing gum	118
SILVERBRITE PAD	312
SILVER COL nose drops	167
SILVER-DALE tomatoes	31
SILVER DOLLAR whiskey	232
SIL-VER-ENE silver polish	212
Silverfish, extermination of	224
SILVER KING bicycle	233
—tricycle	234
Silver polishes	211
SILVER-SENTRY	212
SILVER SWAN toilet paper	230
SILVER THISTLE asparagus	18
Silverware	187
SIMONIZ metal cleaner	211
SIMPLEX hair dye	67
SINCLAIR motor oils	166, 167
SINGER household oils	224
—sewing machines	202, 203, 204
SITROUX cleansing tissues	88
SKASOL drain cleaner	213
Skin disorders, treatment of	121
Sleeping garments, children's	128
Sleeplessness, treatment of	114
SLEEPY BRAND SALTS	189
SPLENDORITA cigar	247
SPLENDOR REDUCING GUM	116
Slips, women's	133
SLUMBER KING mattress	196
SMITH BROTHERS cough syrup	111
SMOOTH-CUT can opener	173
Smokers	149
SNIDER pens	27
—tomato juice	34
SNOVY-WHITE tooth bleach	65
SNOW-SNUG snowsuit	130
Snowsuits, children's	129
Soap, laundry	224
—shampoos	66
—shaving	90
—toilet	94
SOCIETE permanent wave	77
SOCIETY BRAND suits, men's	137
Socks, men's	136
SODIBOR tooth powder	62
Sodium perborate	62
SOLITAIRE apricots	12

—corn	28, 34
—peas	28
Sore throat, treatment of	122
SOUTH WIND auto heater	164
SPARTON record player	268
SPEED GRAPHIC camera	237
SPELLMAN-SAMUELS wine	230, 251
Spot removers	207
SPRATT'S flea powder	223
—flea soap	223
SPRING-AIR bedspring	189
—mattress	197
SPUD cigarettes	245
SQUARE DEAL dog food	42
SQUIBB cream	86
—hand lotion	72
—prophylactic	123
—shaving cream	90
—sunburn cream	93
—toothpaste	64
—toothpowder	62
Stain and spot removers	207
STANBACK headache powders	118
STANDARD OIL cleaning fluid	206
STANLEY'S soap	95, 96, 97
STAR-COLA	83
STARDON'S DIET	116
STAR DUST metal cleaner	211
STARKS' headache powders	118
STAR razor blades	81
STARTEX towels	152
STATLER toilet paper	229
STEARNS & FOSTER mattress	197
STEELCRAFT bicycles	233, 234
Steel wool	210
STELLAR blankets	127
STERN BROS. soap	98, 99
STETSON hats, men's	134
STEVENS towels	152
STEWART-WARNER radio	281
—radio-phonograph	287
ST. FRANCIS peaches	16
ST. MARY'S RIO blankets	127
Stockings, women's	134
STOKELY'S apricots	12
—infant foods	45
—peaches	17
—peas	28
—string beans	35
—tomatoes	36
—tomato juice	34
Stokers, coal	194
STOP SPOT cleaning fluid	208
Storage batteries	168
STRATFORD shirts, men's	136
String beans, canned	34
STRONGHEART dog food	42
STYLEPARK hats, men's	134
SUCCESS peaches	15
Sugar	83
Suits, men's	137
SULTANA pens	26
SUNBEAM asparagus	19
—corn	23
—fruits for salad	14
—preserves	47
—tomatoes	36
—tomato juice	33
SUNBEAM food mixer	191
SUN-BLEST pens	26
—string beans	35
—tomato juice	34
Sunburn preventives	92
SUNDIAL shoes	145
SUNEX sunglasses	243
Sunglasses	242
SUN KIST soap	99
Sun lamps	126
SUNLAN shirts, men's	136
SUNNYBRAE string beans	27
SUNNYFIELD cereals	87
SUNNYSIDE peaches	17
SUNNY SMILE peaches	16

286 SUNNY—ULTRA

SUNNY TUCKER shoes	140
SUNOCO motor oil	100
SUN PROOF paint	227
SUN SHADE sunglasses	243
SUPER DURATEX anti-frozees	100
SUPERFINE soap	95
—toothbrush	101
SUPER HARDWICK shirts	135
SUPER IKONTA cameras	240
SUPERIOR toilet paper	230
SUPERIOR waffle iron	105
SUPER JUICER juice extractor	105
SUPER PYRO anti-froze	100
SUPER THERMO anti-froze	100
SUPREME soap	99
SWANK toilet paper	230
SWEET BLOSSOM peas	20
SWEET CAPORAL cigarettes	245
SWEET GIRL corn	23
—peaches	10
—string beans	20
—tomatoes	31
SWEETHEART soap	95
SWIFT'S tomato juice	34
SWING-A-WAY can opener	174
SWISS-KRISS laxative	100
SYLVANIA radio tubes	200
SYLVETTE obesity cure	110
Syphilis, treatment of	123
Syrup Cocillana	111
Syrup, maple	45
Syrup of White Pine	111

TAKAMINE toothbrush	100, 101
Talcum powder	95
TALDAN tablets	110
TALL'S FEMALE TONIC	123
TALLY NO cigarettes	245
TALLY-NO dog food	43
TAMPA NUGGET cigar	247
TAMPAX tampons	90
Tampone	90
TANGEE eyelash preparation	90
—lipstick	74
—powder	79
—rouge	84
TANGLEFOOT DIFFUSER	223
TANLAC tonic	123
Tennis acid	104
Tarnish preventives	212
TARNISH-RESIST silver polish	211
TAROLA hair tonic	71
TARTAROFF tooth bleach	60
TASTE TELLS tomatoes	82
TASTEWELL peas	20
TASTYEAST	123
TATOO lipstick	74
—rouge	84
TAXI tooth bleach	65
TAYLOR WINE CO. wine	249
Tea	53, 114
TEACHER'S whisky	253
TEA GARDEN preserves	47, 48, 60
TEA-POT tea	55, 60
TEEL, dentifrice	91
Tooth, artificial	94
Tooth, bleaches for	64
TEFRA toothbrush	101
TEK toothbrush	101
TELECHRON electric clocks	170
TEMU soap	90
TENDER LEAF tea	55
TENAX camera	250
TEN TEN cigar	247
Termites, extermination of	224
TERMOX moth preventive	220
TETLEY tea	54
TEXAS MINERAL CRYSTALS	109
TEXLIN toilet paper	230
THERMOHALE inhalant	107
Thermometers	107
THERMO ROYAL anti-froze	100

THIN-FLEX razor blades	80
THE THOMAS' hair treatment	71
THOM McAN shoes	147, 148, 149
—sneakers	140
THOROGOOD shoes	140
THREE FLOWERS cream	80
—rouge	85
3-IN-ONE household oil	224
THREE MINUTE cereals	57
THREE SISTERS beans, string	30
THYMOLINE mouthwash	70
Thyroid compounds	116
TIOLENE motor oils	100, 107
Tires, automobile	170
TIS-GON depilatory	70
Tomato, electric	104
TODCO soap	95
Toilet-bowl cleaners	210
Toilet paper	220
TOLEDO fryole	230
Tomatoes, canned	29
Tomato juices, canned	32
TOM TIT peaches	10
Tonics	123
Toothache, treatment of	110
Tooth bleaches	64
—brushes	100
—fasteners	85
—pastes	83
—powders	91
TOP HAT raincoat	140
TOPS cigar	247
Towels	150, 152
TOWN AND COUNTRY powder	79
TOWN AND COUNTRY soap	90
TOWNCRAFT shirts, men's	135
TOWN TAVERN whiskey	202
TRANSITONE radio	200
TRAVELER motor oils	100, 107
TREE tea	50
TRIAD radio tubes	200
TRI-CLENE fabric cleaner	200
TRICOLATOR coffee maker	175
Trisols	230
TRILBY soap	95
Trisodium phosphate (TSP)	200, 210
TRITON motor oil	100
TROPIC-AIRE radio heater	104
TRULIP lipstick	74
TRUE BLUE soap	100
TRUEWORTH soap	59
TRU-FORM shoes	140
TRULY WARNER hats, men's	134
TRUPAK asparagus	19
—fruits for salad	14
—infant foods	45
—peas	20
—preserves	48, 49
—string beans	20
—tomato juices	34
TRUTH sheets	145
TRU VAL shirts, men's	130, 130
Tubes, radio	271
TUMS	102, 114
TUNG-SOL radio tubes	200
TURBINE egg beater	177
TUSSY rouge	85
TUXEDO razor blades	80
TWENTY GRAND cigarettes	240
TWIN WEAVES slips	104
TYDOL motor oils	100, 107
Typewriters, portable	200
TYRA cleaning tissue	80

U8B4 string beans	27
U. S. bathing caps	124
—rubbers	141
U8L storage batteries	100
USP fruits for salad	14
U. S. ROYAL inner tubes	172
—tires	170
ULTRA DEW deodorant	70

ULTRASOL—WESTGIFT 287

ULTRASOL hair tonic	71
Ultra-violet therapy	125
Undershirts, men's	137
Underwear, children's	138
—women's	137
UNDERWOOD fountain pen	237
UNITED SPORTS cigar	247
UNIVERSAL electric range	180
—food mixer	181
—heating pad	183
—juice extractor	188
—vacuum cleaners	206
—waffle iron	165
UNIVEX MERCURY camera	241
Used cars	181
USHER'S whisky	233
USOLA face cream	89
UTICA sheets	142, 143, 144

Vacuum cleaners	204
VALAMONT preserves	48, 50
VALAZE hand lotion	72
—lipstick	74
VALET AUTO-STROP razor	83
VALET razor blade	82
VALOR motor oil	160
VAL VITA tomatoes	31
—tomato juice	34
VALVOLINE motor oils	188, 187
VAN CAMP'S baked beans	21
—tomato juice	35
VAN ESS shampoo	88
VAN HEUSEN shirts, men's	138
VAN HOUTEN'S cocoa	39
VANITY FAIR shorts, women's	155
VANITY FAIR soap	96
VANIVA shaving cream	91
VANS ALL WHITE	229
VAN'S hair dye	60
VANTA underwear, children's	131
VAPEX	107
VARADY OF VIENNA cream	88
—lipstick	71
—powder	79
—rugs	84
VARSITY fountain pen	257
VARSITY shorts, men's	138
—undershirts, men's	139
Vaseline, for burns	115
VAT 69 whiskeys	253
VAUGHAN'S can openers	173, 174
VEEDOL motor oils	188, 187
Vegetable seeds	348
VELDOWN sanitary napkins	88
Velocipedes	231
VELVET penoil	255
VELVET toilet paper	230
Venereal diseases	123
VENIDA cleansing tissues	88
—toilet paper	230
VENIDA MENTHOKERCHIEF	107
VENIDA-NAP sanitary napkins	88
VENIDA OIL shampoo	88
VENUS sanitary napkins	88
VERACOLATE laxative	110
VERMONT MAID maple syrup	48
VICEROY cigarettes	245
VICK'S VAPORUB	106, 107
—VA-TRO-NOL	107
—VORATONE mouthwash	76
VICTOR bicycle	231
VICTOR phonograph needles	282
VICTORIA sheets	142
VIGOR soap	190
VIKING toilet paper	230
VILAS paint	227
VINCE mouthwash	78
—tooth powder	62
VINEYARDISTS wines	349
VIRIDEN'S peachos	17
VIRGINIA ROUNDS cigarettes	245
VISCO household oil	224

VISIVAC coffee maker	175
VIS-O-PEN fountain pen	287
VIT cleanser	210
VITALIS hair tonic	71
Vitamins	10, 33, 44, 81, 106
VIVIAN TRENT face powder	79
VOGUE toothpaste	64
VULCAN inner tubes	172

WQXR radio-phonograph	288
Waffle irons, electric	184
WAHL EVERSHARP penoil	255
WAHL fountain pens	256
WALCO phonograph needles	283
WALDORF toilet paper	230
WALGREEN'S soap	96
WALK OVER shoes	148
WALLACE fountain pen	257
WALLUTTA hair dye	68
WALTIS rust remover	144
WAMSUTTA sheets	161
WARD'S anti-freeze	163
—auto heater	127
—blankets	182
—food mixer	183
—heating pad	171, 172
—inner tubes	185, 187
—motor oils	227, 228
—paints	259
—radio	269
—radio tubes	140
—raincoat	81
—razor blades	80, 81
—shampoo	86
—shaving soap	91, 92
—sheets	142
—shirts, men's	135
—sneakers	149
—snowsuit	129
—soup	89, 97, 98
—socks	137
—storage batteries	189
—tires	171
—toothbrush	100, 101
—toothpaste	63
—tooth powder	62
—underwear, children's	131
WARM SPRINGS COMPOUND	169
WARRANTY asparagus	19
Washing machines	206
Washing powders	224
WASP fountain pen	257
WATERMAN'S fountain pens	258
WAYNE KNIT stockings	157
WAY-SAGLESS bedsprings	189
WEAR-EVER can openers	174
—coffee maker	175
—juice extractor	188
WEAREVER fountain pens	257
—penoil	258
WEATHERBIRD shoes	147
WEBB towels	181
WEBSTER cigar	247
WELCH grape juice	116
—tomato juice	34
WELDONA	119
WELLMAN asparagus	16
—peaches	15
—preserves	28
—string beans	47, 48, 50
—tomatoes	29
WELSHADE sunglasses	31
WELSHARP fountain pen	243
WELTINI camera	287
WELTUR camera	349
WELWYN shirts, men's	349
WERNER shoes	135
WESTCLOX electric clocks	148
WESTERN WONDER cleaner	179
WESTFIELD tricycle	212
WESTGIFT tomatoes	235
—	31

288 WESTGIFT—ZYMOLÉ

—tomato juice	35
WESTINGHOUSE electric fan	180
—electric range	191
—food mixer	181
—heating pad	183
—sewing machines	203
—sun lamps	121
—waffle iron	185
WESTLAKE asparagus	19
—peaches	15
—peas	28
WESTMINSTER stockings	137
WESTPHAL'S hair dye	66
WETHERILL tooth bleach	65
WHEATENA cereal	36
WHEATIES cereal	36
WHEAT KRISPIES cereal	36
WHELAN'S soap	99
Whiskys	251
WHITE rouge	83
WHITE sewing machines	202, 204
WHITE ACE shoe whitener	229
WHITE HORSE whiskey	255
WHITE HOUSE soap	160
WHITE KING soap	95, 160
WHITE OWL oiler	247
WHITE ROSE apricots	12
—asparagus	18, 19
—baked beans	21
—cocoa	40
—corn	22, 24
—fruits for salad	13
—maple syrup	46
—peaches	16
—peas	28
—preserves	48, 50
—string beans	26
—tea	55
—toilet paper	230
—tomatoes	31
—tomato juice	34
WHITELEY whiskey	253
Whiting for cleaning	210
WILCOX-GAY record player	208
WILD GOOSE toilet paper	230
WILDROOT hair tonic	71
—shampoo	87
WILKEN FAMILY whiskey	253
WILLARD storage batteries	169
WILLCOX & GIBBS sewing machines	204
WILLIAMS shaving cream	91
—shaving soap	91
—soap	95, 96
WILLOW BROOK tomatoes	31
WILLSON sunglasses	213
WILSON shorts, men's	136
WILSON'S whiskey	252
WILTSHIRE undershirts, men's	139
WINDEX window cleaner	213
Window cleaners	212
WINDSOR electric shaver	89
WINDSOR whiskey	252

Wines	249
WINGS cigarettes	245
WINMORE peaches	16
WINTER-FLO anti-freeze	161
WINX	86
WIPE KLEEN window cleaner	213
WISSOTZKY tea	85
Witch hazel	92
WIZARD storage batteries	169
WOLF'S HEAD motor oils	166, 167
WONDER CRYSTALS laxative	100
WONDER PALM soap	97
WOODBURY cream	59
—lipstick	75
—powder	79
—shampoo	86
—soap	95, 96
WOOLWORTH'S shorts, men's	136
WORCESTER salt	52
WORCESTER toothpaste	64
WORLD fruits for salad	13
—string beans	26
WORSTED-TEX suits, men's	137
WRIGLEY'S toothpaste	63
WRISLEY'S soap	96, 100
WYETH'S hair dye	63

X-BAZIN depilatories	70
XERVAC scalp treatment	71
XPOSE sun tan cream	63
XTRA-NICE peaches	15
—tomato juice	34

YACHT CLUB tomatoes	31
YARDLEY cream	59
—lipstick	75
—powder	79
—rouge	85
—soap	95, 100
YEAST-VITE	119
YELLOWSTONE peaches	16
—tomatoes	31
YOLANDE slips	184
YOLO tomatoes	32
YORFLAX towels	182
YORK HOUSE preserves	48, 49, 50
YOST'S hair tonic	71
YOUTHRAY hair dye	68
YUM for headache	118

ZX window cleaner	213
ZALO toilet paper	230
ZENITH radios	259, 260, 261, 262
—radio tubes	269
ZEPHYR electric shaver	89
ZERBEE mechanical toothbrush	101
ZERONE anti-freeze	161
ZEUS filter holder	246
ZINCORA tooth powder	62
ZIP depilatories	70
ZONITE	76, 103, 113, 153, 213
ZYMOLÉ cough syrup	111

PARTIAL CONTENTS OF ALL CU REPORTS
PUBLISHED THROUGH MAY 1939

- May, 1936*—Hosiery, Alka-Seltzer, Soaps, Milk, Toothbrushes.
June—Vegetable Soup, Seeds, Anacin, Baume Bengue.
July—Used Cars, Travel, Cooperative Distributors.
Aug.—Heating Equipment, Hosiery (higher priced), Bread, Laundry Soaps, Coney Island (bacterial tests).
Sept.—Shoes, Tires, Whiskies, Hot-Water Bottles, Rubbers.
Oct.—Dentifrices, Men's Shirts, Coal and Oil, Brandies, Gins, Rums and Cordials.
Nov.—Children's Shoes, Toasters, Baking Powder, Wines.
Dec.—Vacuum Cleaners, Mineral Oil Nose Drops, Electric Irons, Fountain Pens, Blankets, Tomato Juice.
Jan.-Feb., 1937—Men's Suits, Shaving Aids, Hand Lotions, Maple Syrup.
March—Sheets, Face Powders, Flour, Canned Asparagus and Cherries.
April—Aminopyrine, Cold Cream, Men's Shirts.
May—Trailers, Washing Machines, Constipation.
June—Large Cameras, Sanitary Napkins, Constipation.
July—Miniature Cameras, Fans, Ice Boxes, Constipation.
Aug.-Sept.—Ice Cream, Photographic Equipment, Inner Tubes, Fish Baits, Raincoats, Electric Clocks, Constipation.
Oct.—Auto Radios, Cereals, Heating Equipment, Constipation.
Nov.—Anti-Freezes, Portable Typewriters, Men's Hats, Constipation (concluded), Sewing Machines.
Dec.—Electric Shavers, Lipsticks, Cigars, Toys, Radios.
Jan., 1938—Lisle and Rayon Stockings, Men's Shorts, Batteries, Vitamins.
Feb.—1938 Automobiles (ratings), Vitamins A & D.
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April—Tuna Fish, Electric Ranges, Electric Heating Pads, Mattresses, Radio Antennas.
May—Permanent Waves, Waffle Irons, Razor Blades (Gem type), Canned Peas and Apricots, Bicycles & Velocipedes, Bedsprings.
June—Dog Foods, Refrigerators, Canned Fruits & String Beans, Men's Handkerchiefs, Cleansing Tissues.

(Cont'd next page)

July—Cigarettes, Sunburn Preventives, Sunglasses, Gasoline, Motor Oils.

Aug.—Coca-Cola, Catsup, Cameras & Equipment, Sneakers, Furs.

Sept.—Men's Shirts, Shampoos, Children's Shoes, Furnaces and Boilers.

Oct.—Alkalizers, Auto Tires, Food Mixers, Dry Cleaning, Oil Burners, Coal Stokers.

Nov.—Infant Foods, Anti-Freezes, Razors, Alkalizers, Auto Heaters, Snowsuits, Cocoa, Oil Heaters.

Dec.—Shavers, 1939 Autos (preliminary), Pens, Marmalades, 1939 Radios, Leather Gloves, Blankets.

Jan., 1939—Hair Dyes, Spot Removers, Radio-Phonographs, Sheets, Investment Plans, Store Sales.

Feb.—1939 Autos (ratings), Rouge, Window Shades, Canned Tomatoes and Tomato Juice.

March—Tea, Toilet Soaps, Juice Extractors, Can Openers, Men's Topcoats, Canned Peaches and Asparagus, Correspondence Schools.

April—Face Creams and Powders, Men's Shoes, Headache Preparations, Antiseptics, Seeds and Fertilizers.

May—Lipsticks, Electric Irons, Flour, Candy, Threads, Garden Insecticides, Headache Preparations, Antiseptics.

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